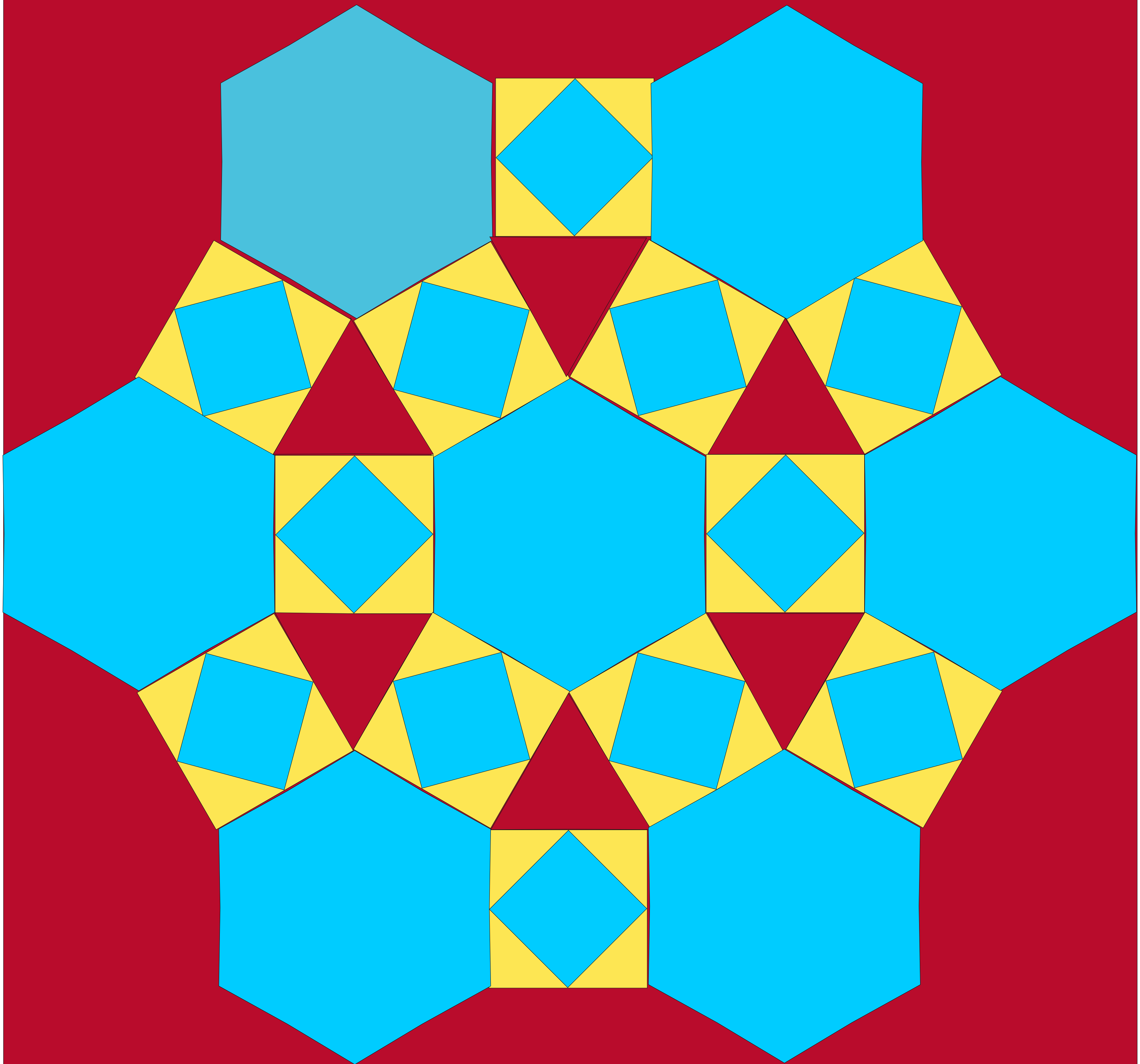


Math Delight - 3

Universal Active Math

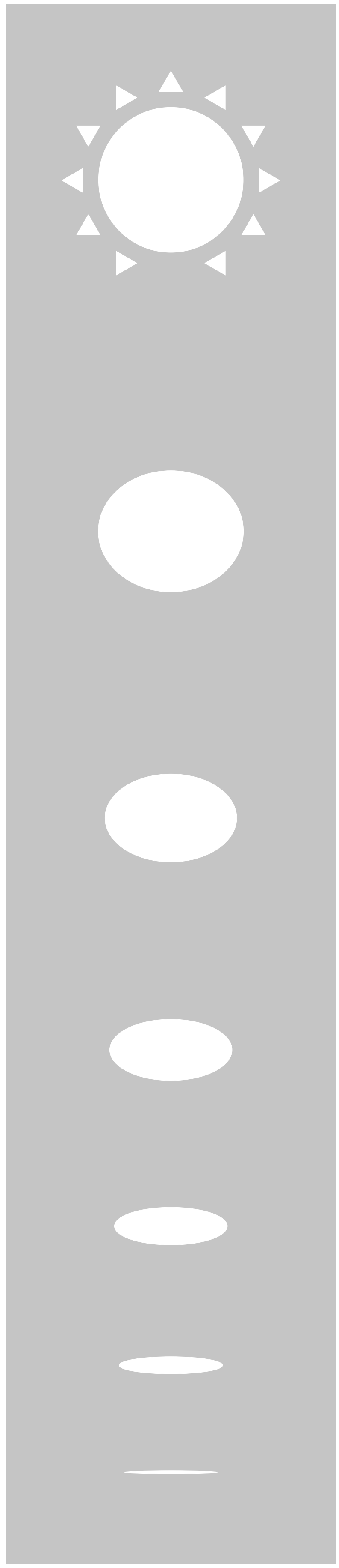
Math has many languages

The language of hands and fingers
The language of words
The language of sounds
The language of pictures
The language of things
The language of shapes
The language of patterns
The language of numbers

Math does not have only one language. Therefore it cannot be learned only through paper, pen or blackboard nor can it be memorized/ learned by rote.

This method aims at introducing all the languages of math. We will use objects for the language of things, and then for the language of pictures and the language of numbers we will use Math Delight.

The child who is familiar with this way of learning math, would enjoy, discover, understand, and master math.



Universal Active Math

Math Delight - 3

NAVNIRMITI
LEARNING
FOUNDATION

Conceived and Written by

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Universal Active Math team

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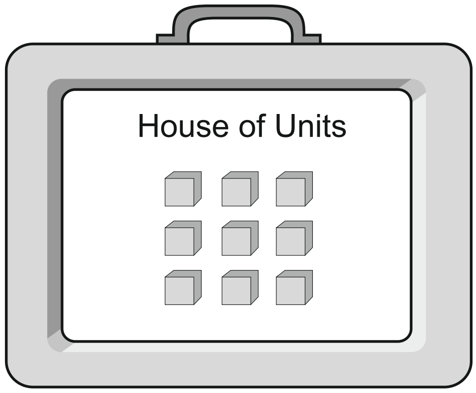
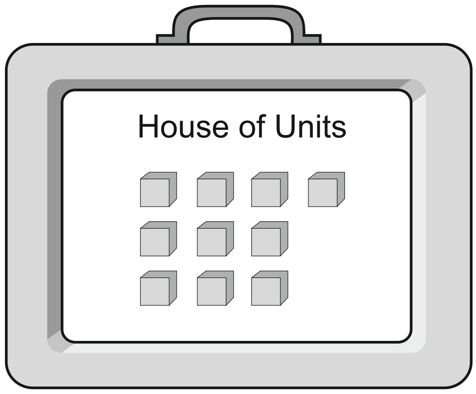
Ten Ones = One Ten

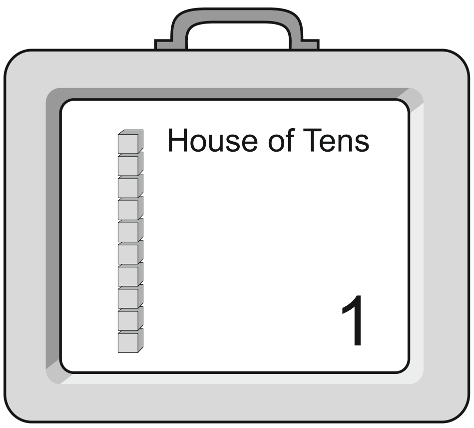
There are 9 units
on the slate.

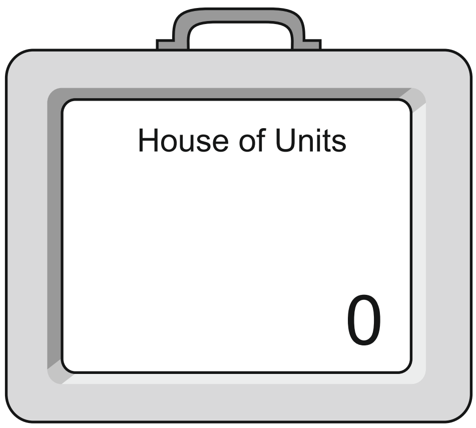


Add one more unit.
Now there are ten units.



Join ten units together to make a rod of ten. We call this rod a 'ten'.
Ten units joined, make a ten.
Make a house of ‘tens’. Keep the rod of ten in the house of tens.
The units house is now empty.





Ten Units = One Ten

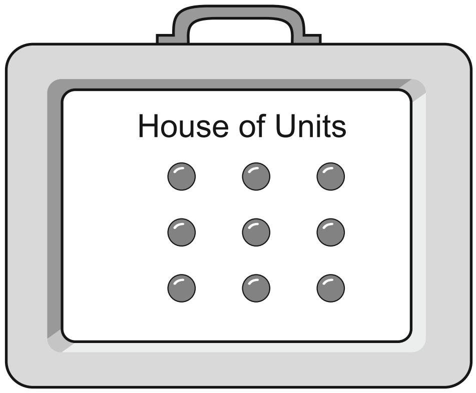
Ten Units = 1 Ten =

Tens	Units
1	0

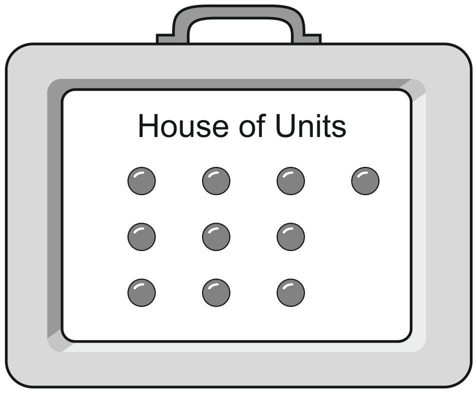
= 10

Making Tens with beads

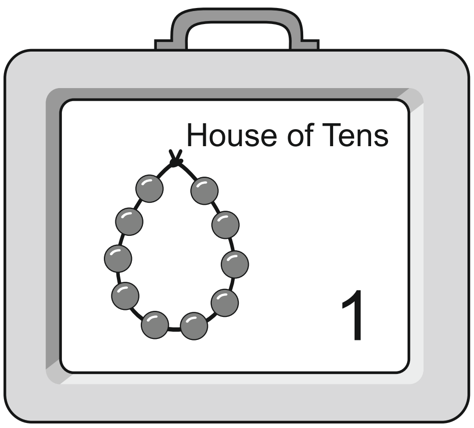
There are 9 beads
on the slate.

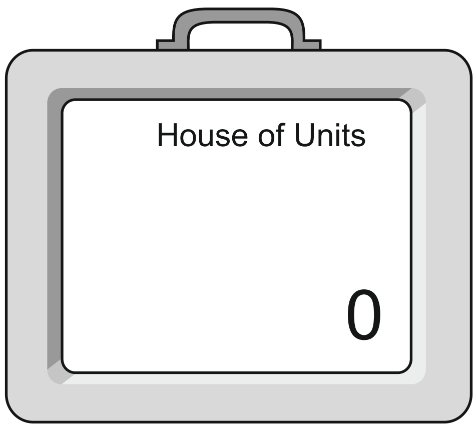


Add one more bead.
Now there are ten
beads on the slate.



String the ten beads to make a garland of ten beads.
We call this a 'ten'. Keep it in the house of tens.





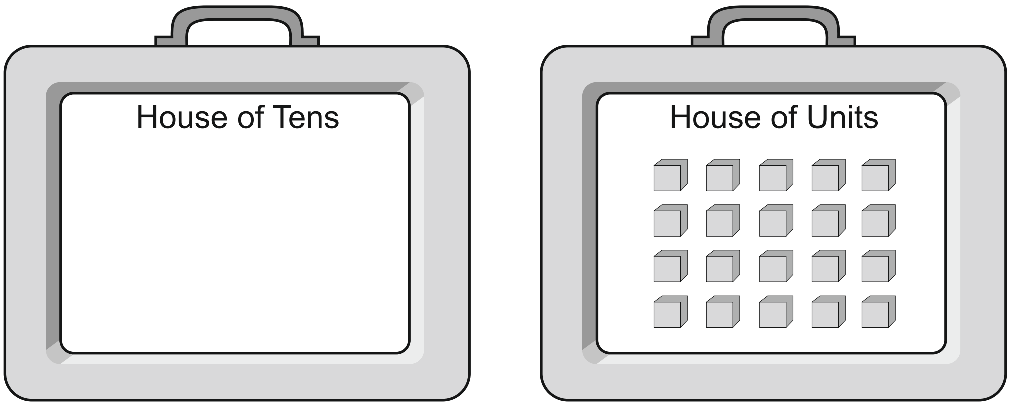
Ten Units = One Ten

Ten Units = ☐ Ten =

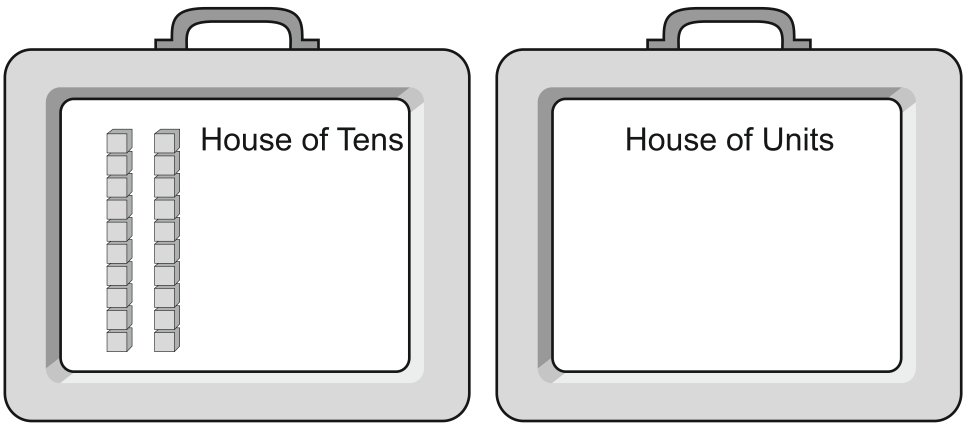
Tens	Units

= ☐

Twenty units are there in the House of units.

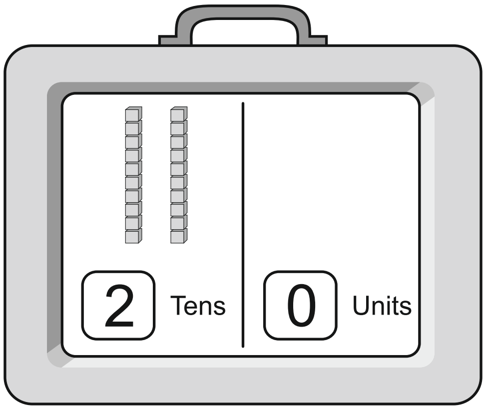


Join the units to make two rods of Ten. Keep the two rods in their house.



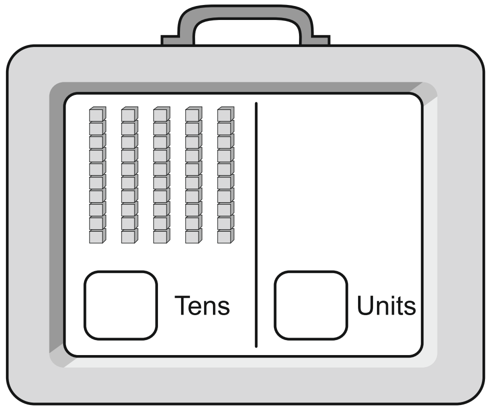
					Tens	Units		
Twenty Units	=	2	Tens	=	2	0	=	2 0
Forty Units	=		Tens	=			=	
Seventy Units	=		Tens	=			=	

How many rods? How many units? What is the number?



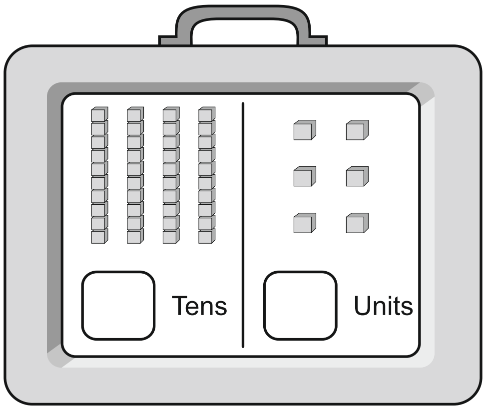
Tens	Units
2	0

= 20



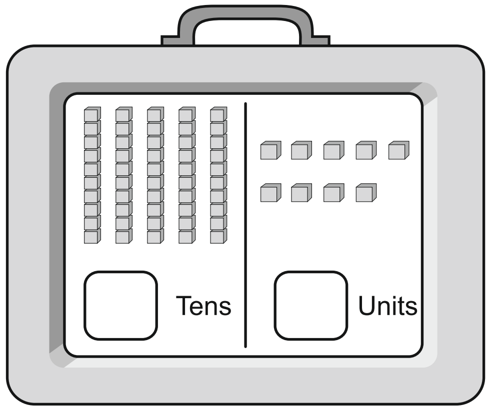
Tens	Units

= ______



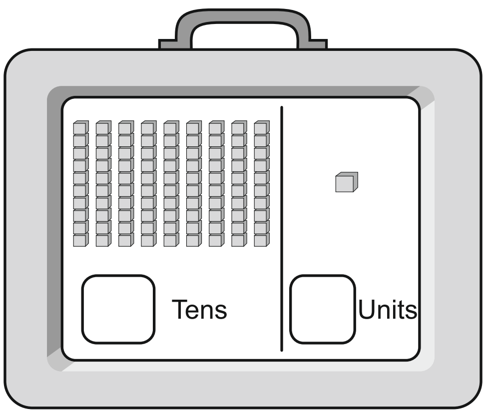
Tens	Units

= ______



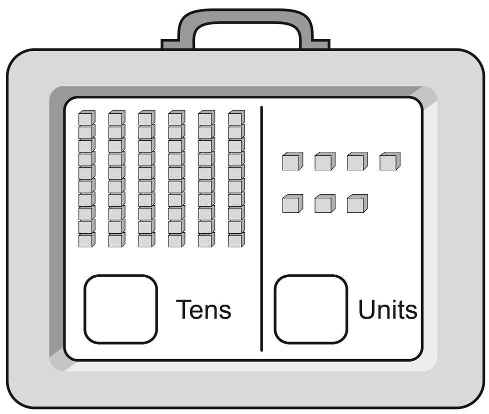
Tens	Units

= ______



Tens	Units

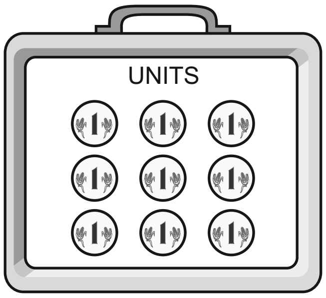
= ______



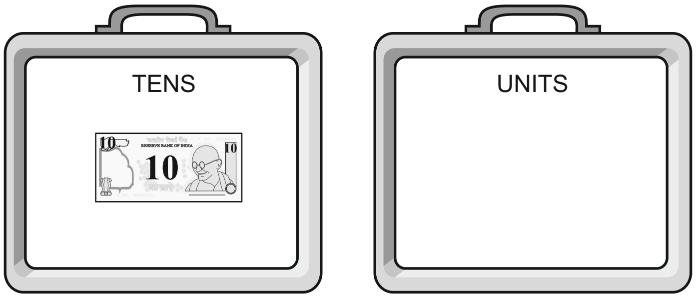
Tens	Units

= ______

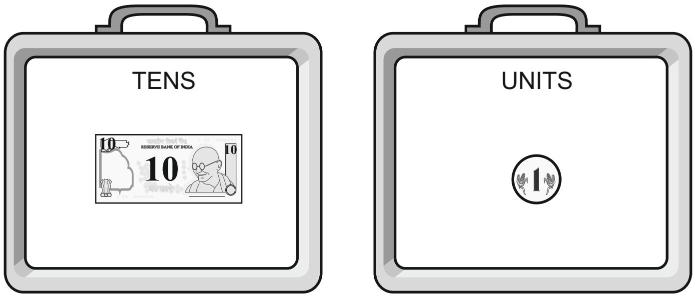
Make the following numbers using slates and currency notes.
Observe the picture and write the numbers in the houses.



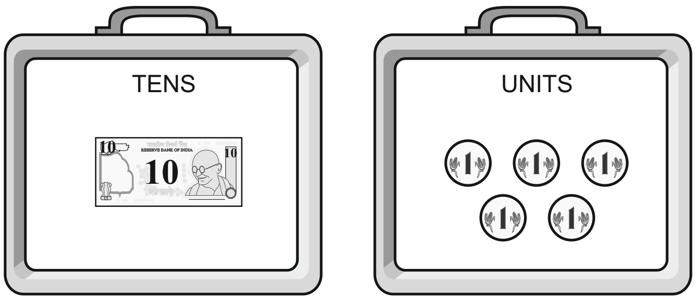
T	U



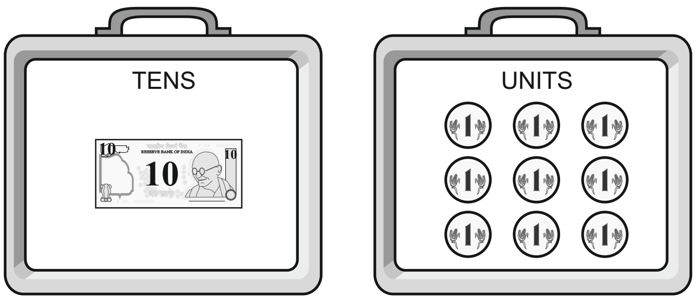
T	U



T	U

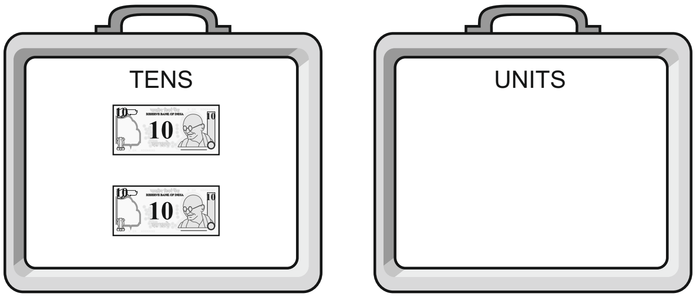


T	U

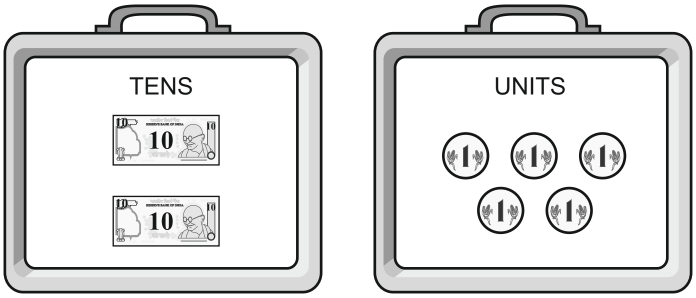


T	U

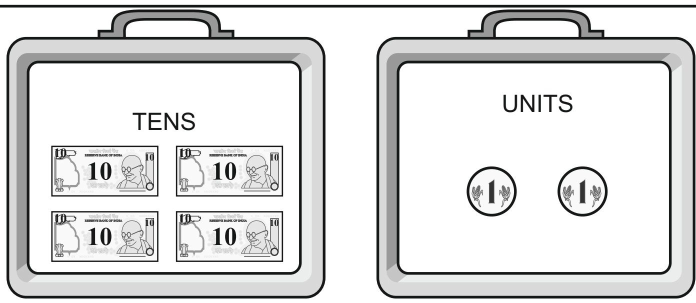
How many rupees ? Write the numbers in the houses.



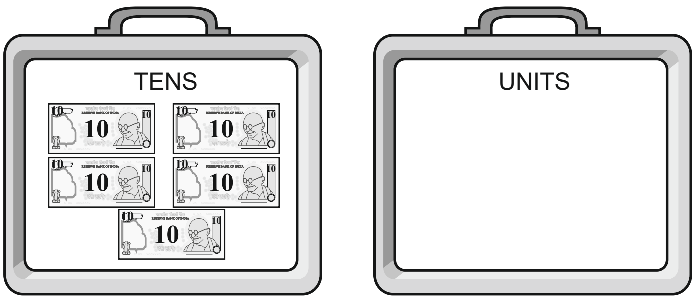
T	U



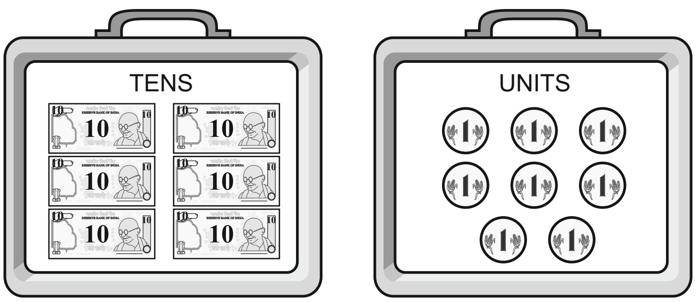
T	U



T	U

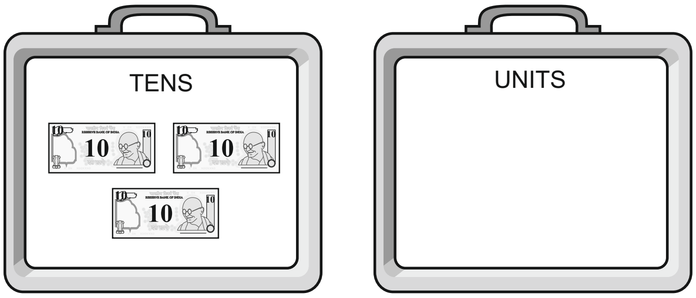


T	U

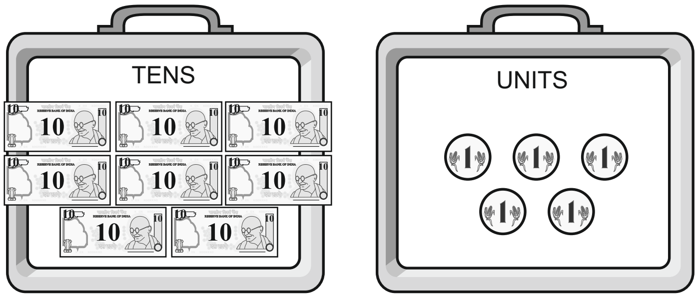


T	U

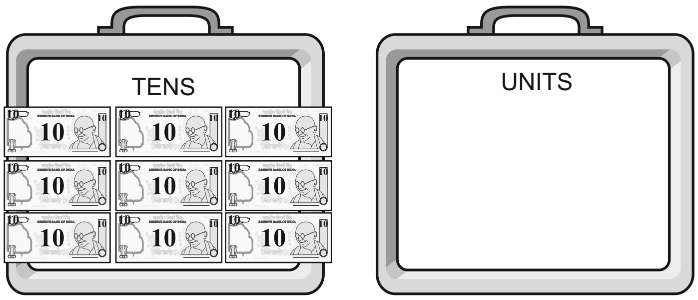
How many rupees ? Write the numbers in the houses.



T	U



T	U



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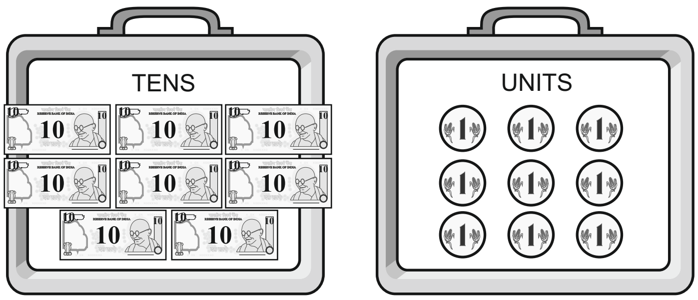
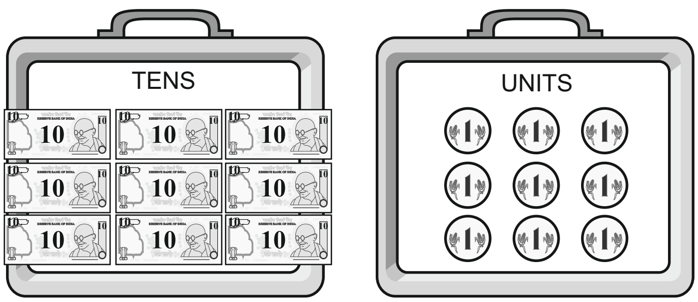
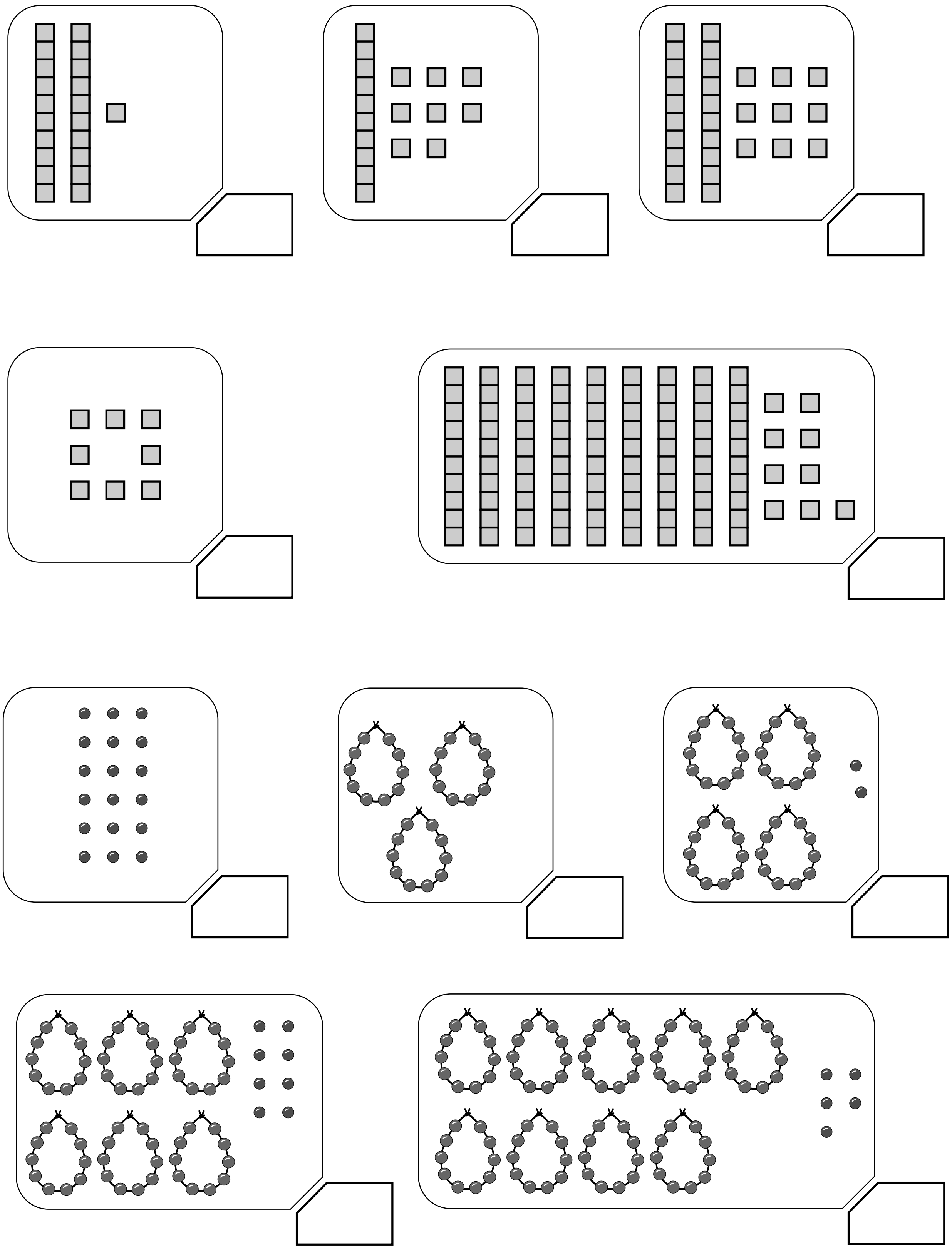


T	U

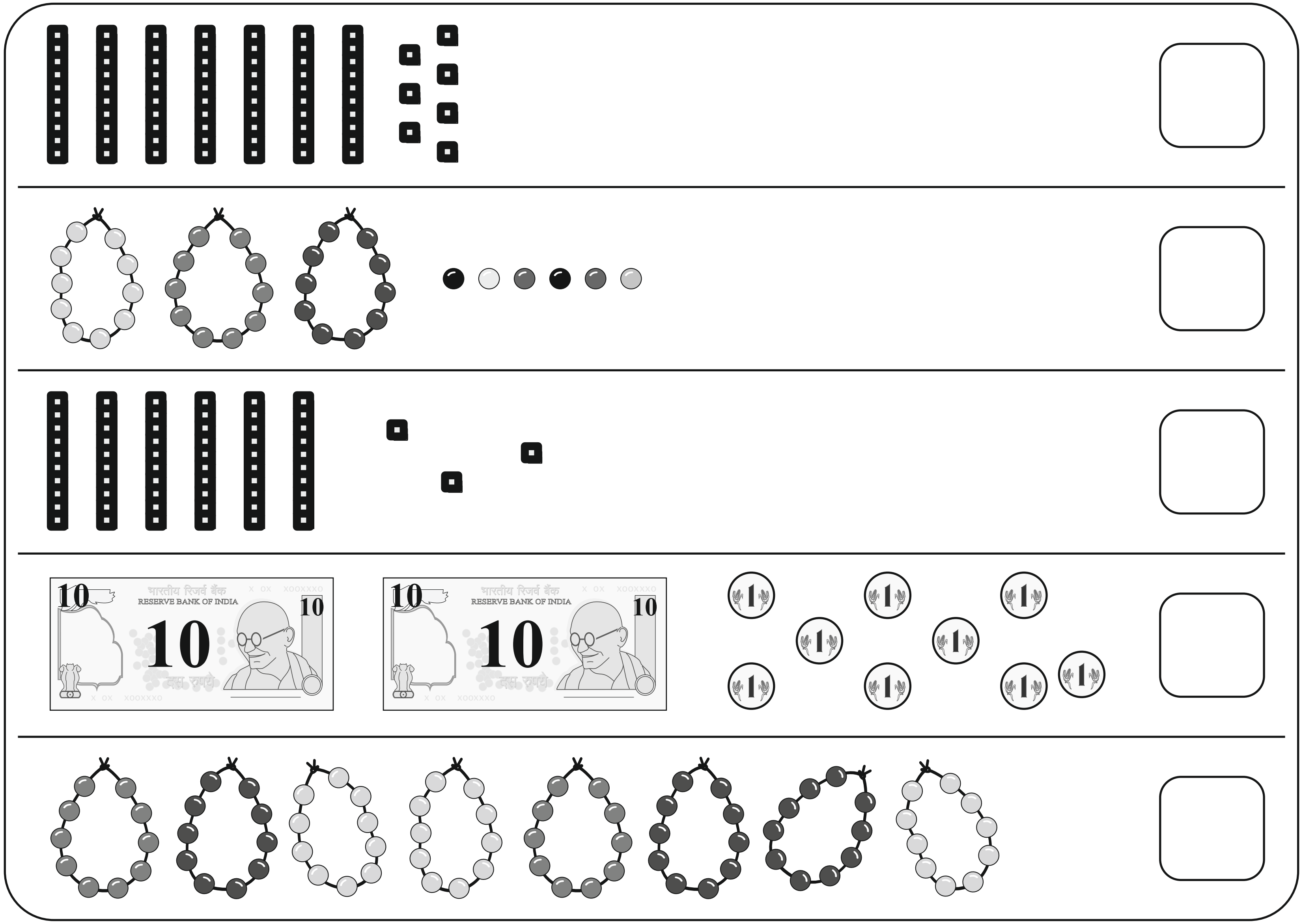


T	U

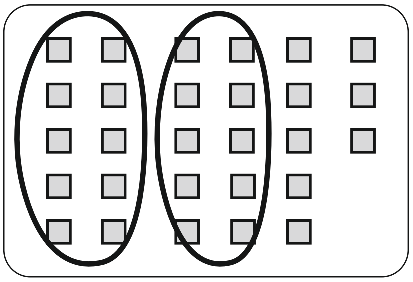
How many? Write the number.



How many? Write the number.



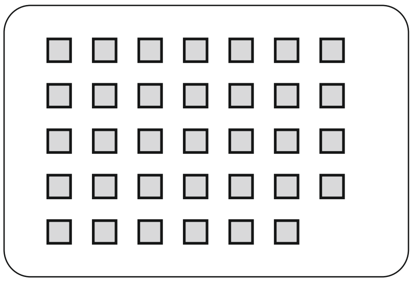
Draw circles around the objects to make as many tens as possible.
Write the number.



There are 2 Tens and 8 Units

Therefore, we write

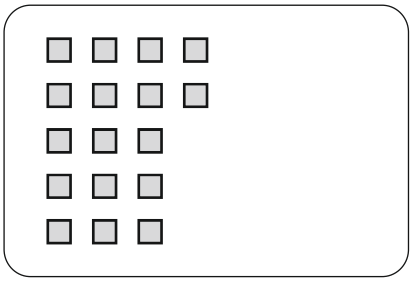
Tens	Units
2	8



There are ☐ Tens and ☐ Units

Therefore, we write

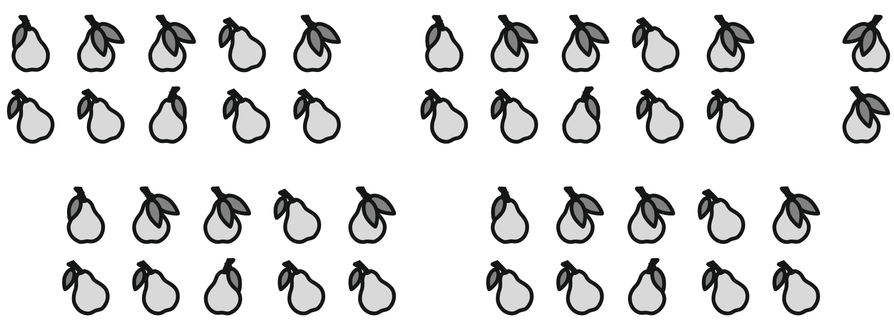
Tens	Units



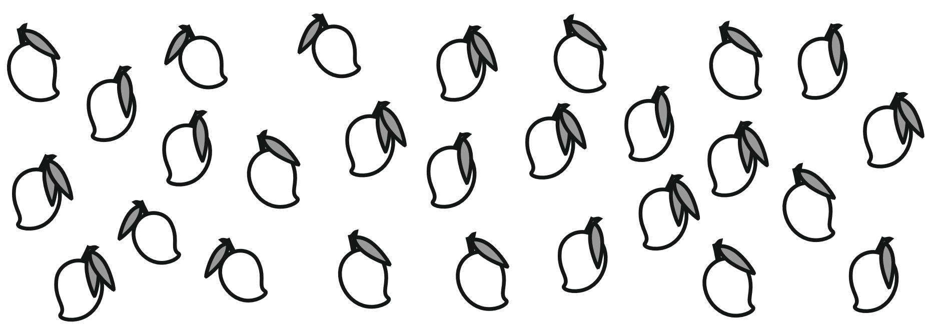
There are ☐ Tens and ☐ Units

Therefore, we write

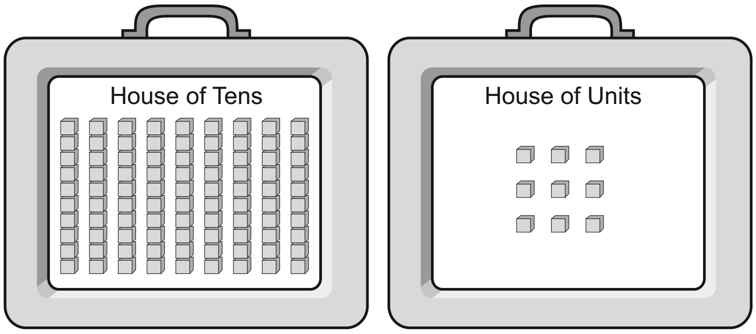
Tens	Units



Tens	Units

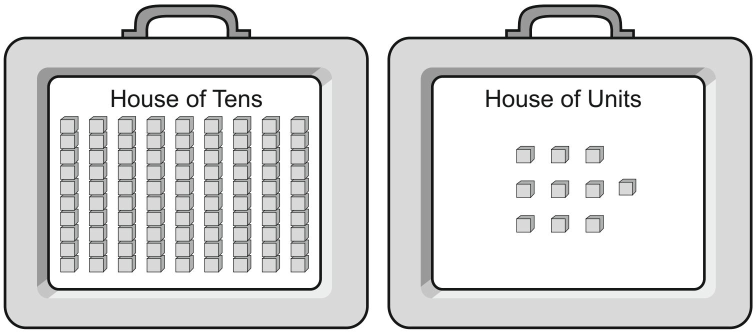


Tens	Units

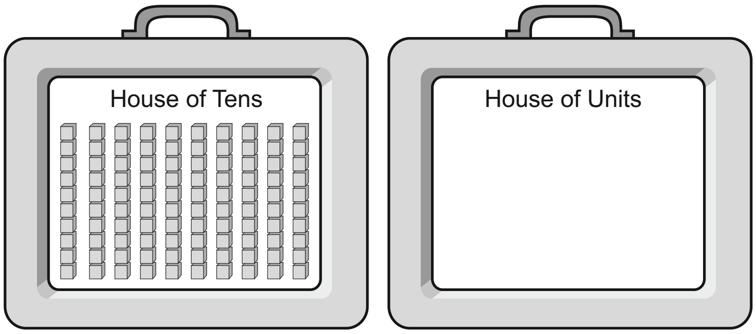


Tens	Units
9	9

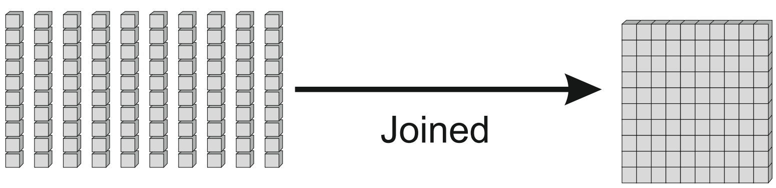
We add one more unit.



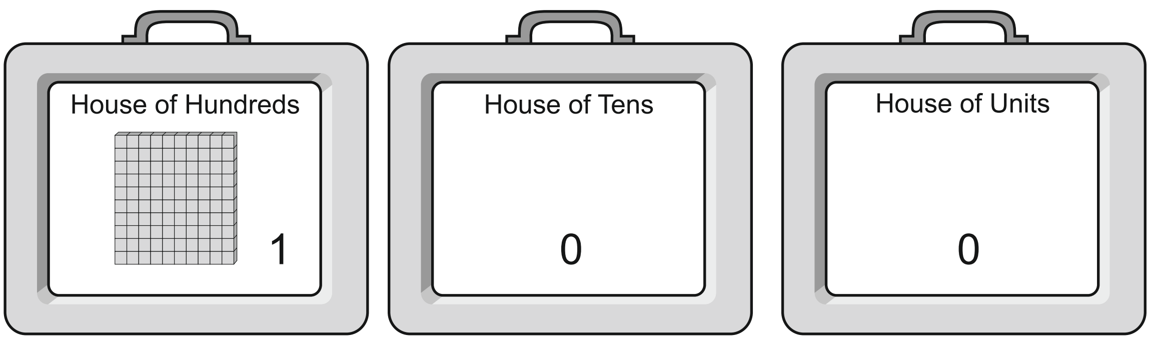
Ten units in the house of units. We make a ten and place it in house of tens.



Now there are ten tens in the house of ten's. We join them to make a hundred.



Make a separate house for the hundred. Keep this house to the left of the house of tens.



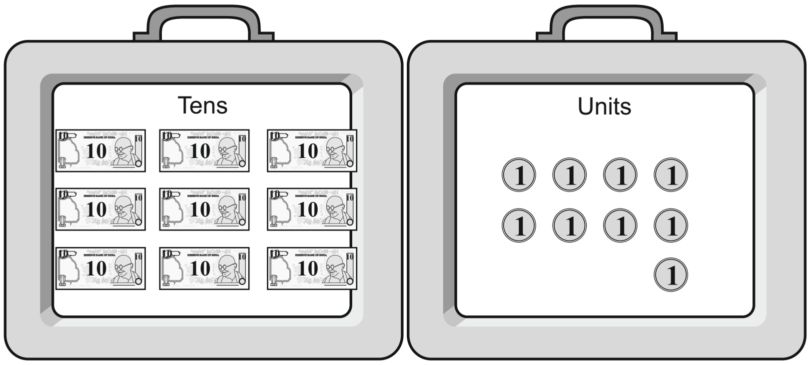
H	T	U
1	0	0

= 100

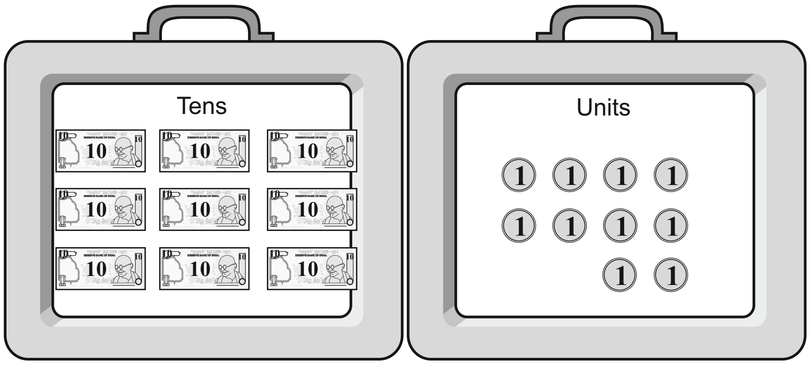
Make houses of Tens and Units with slates. Make and place 99 rupees.

Tens	Units
9	9

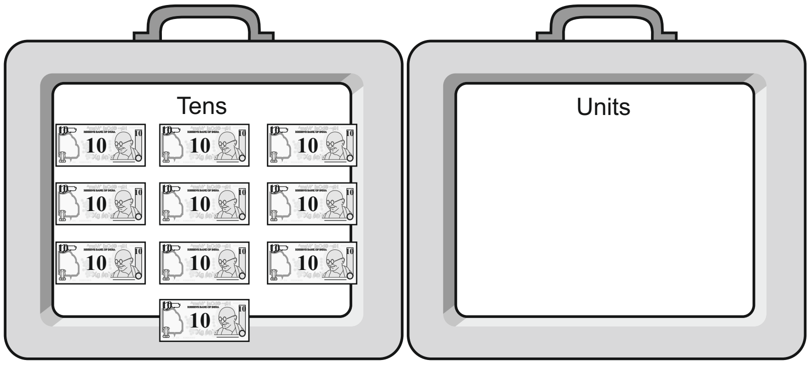
9 tens and 9 units.

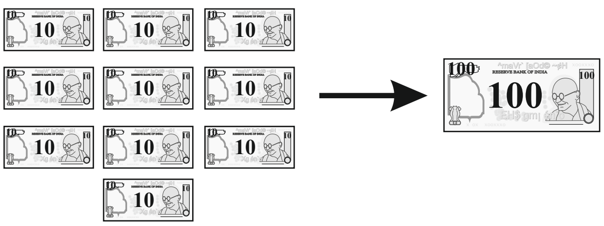


Add one rupee. Now we have 10 units in the units' house.

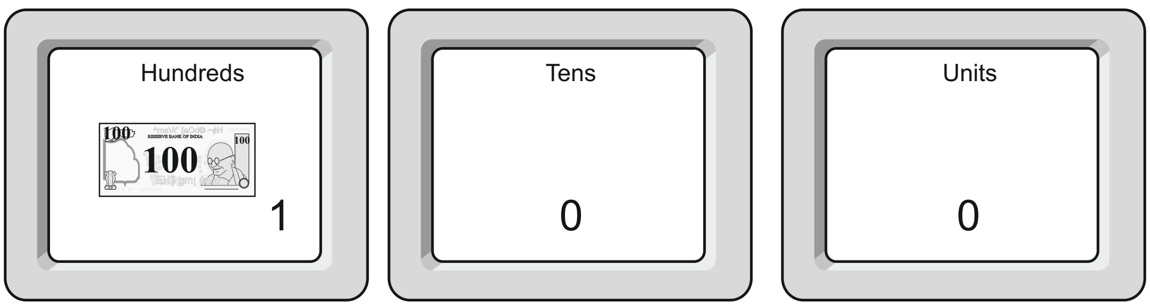


We change ten units into one 10 rupee note. Now we have 10 tens. We change 10 ten rupee notes into one hundred rupee note.





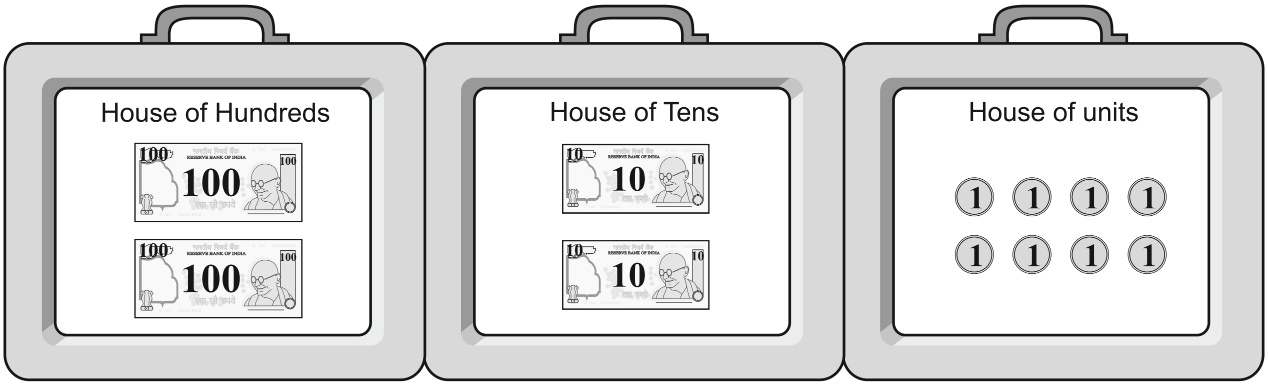
We make a new house for hundreds and keep the hundred rupee note in it.



H	T	U
1	0	0

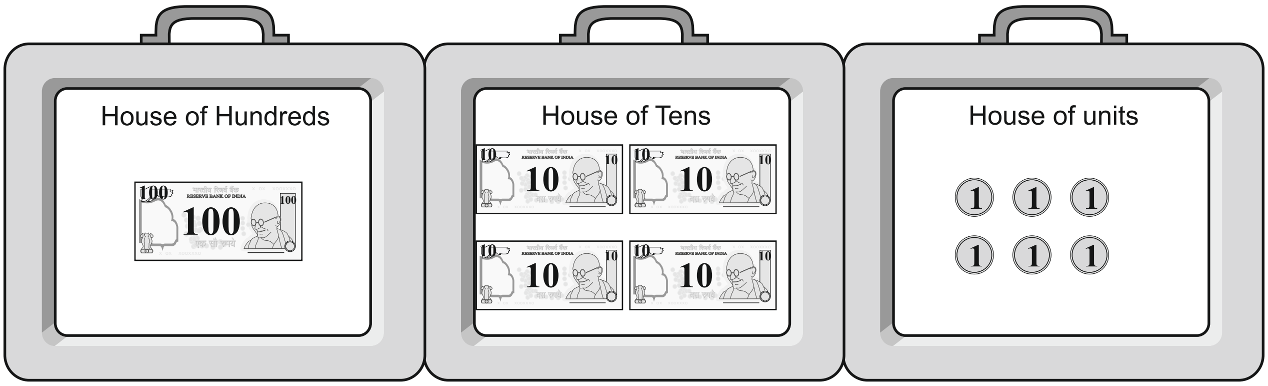
= 100

How many rupees?

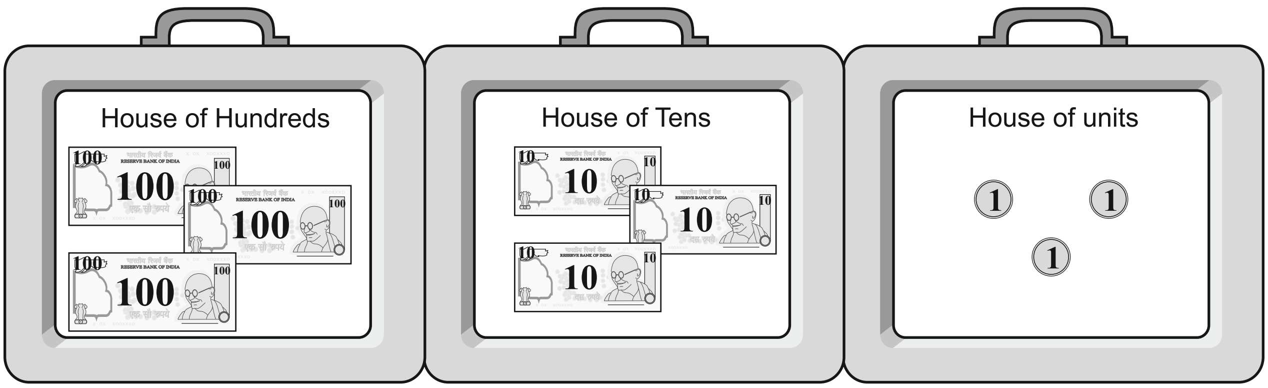


H	T	U

H

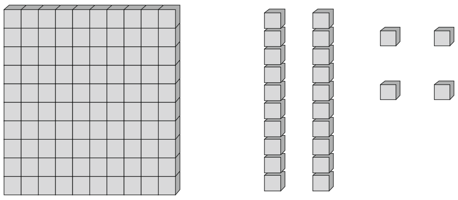


H	T	U

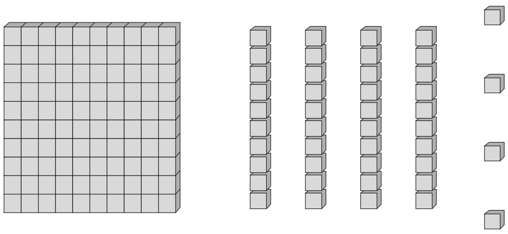


H	T	U

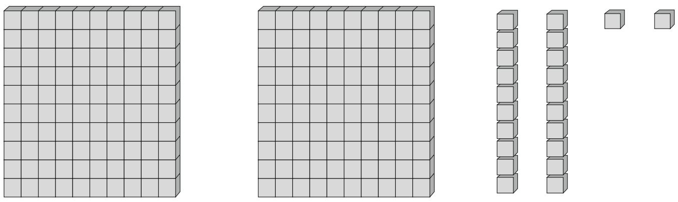
How many?



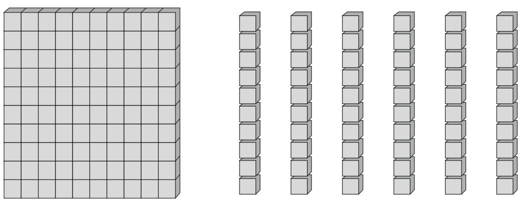
H	T	U



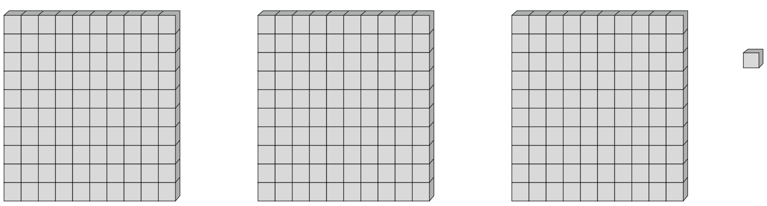
H	T	U



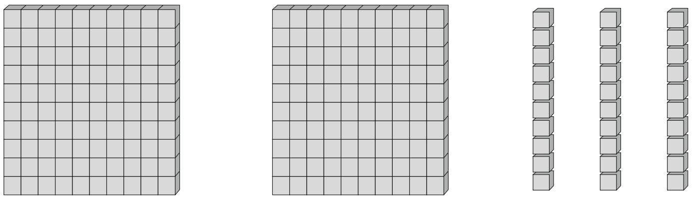
H	T	U



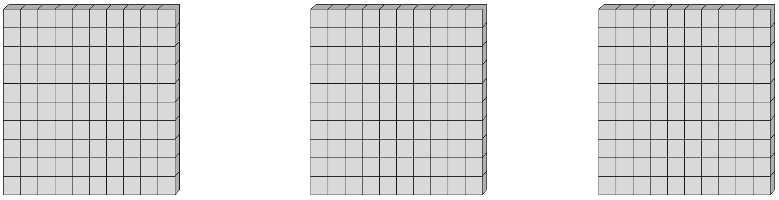
H	T	U



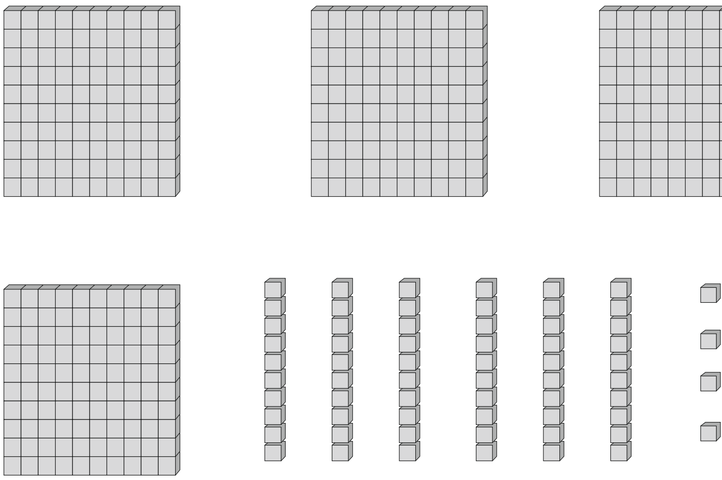
H	T	U



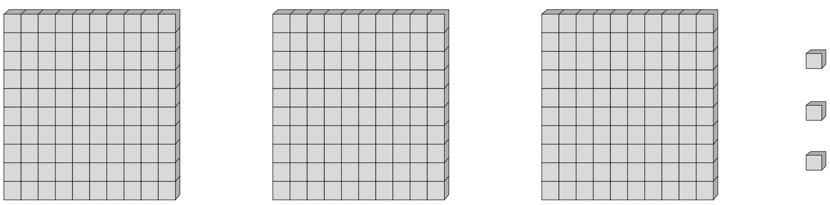
H	T	U



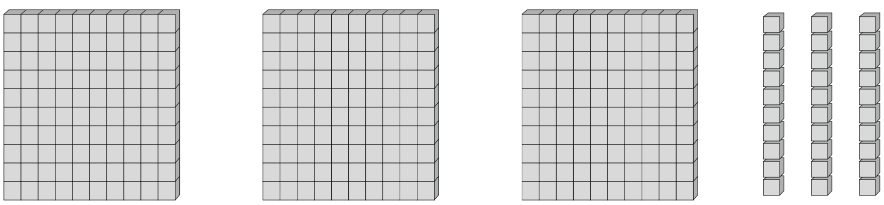
H	T	U



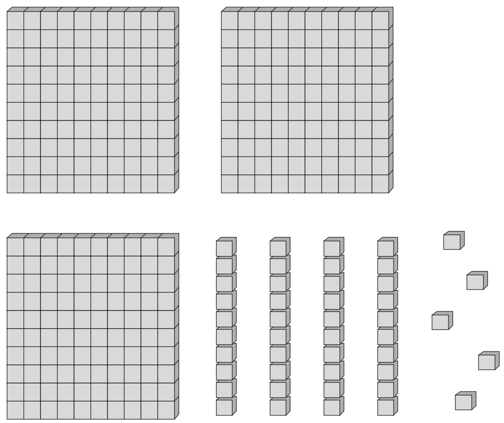
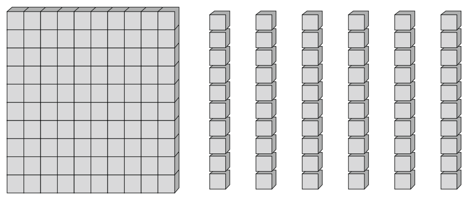
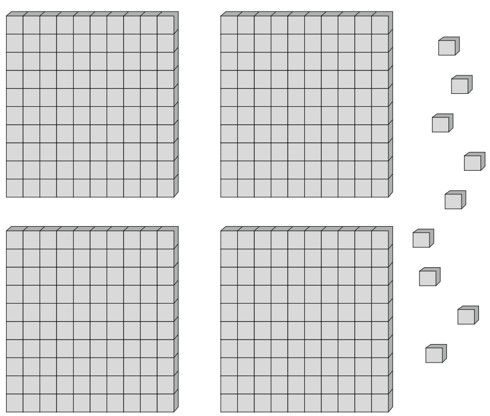
H	T	U



H	T	U

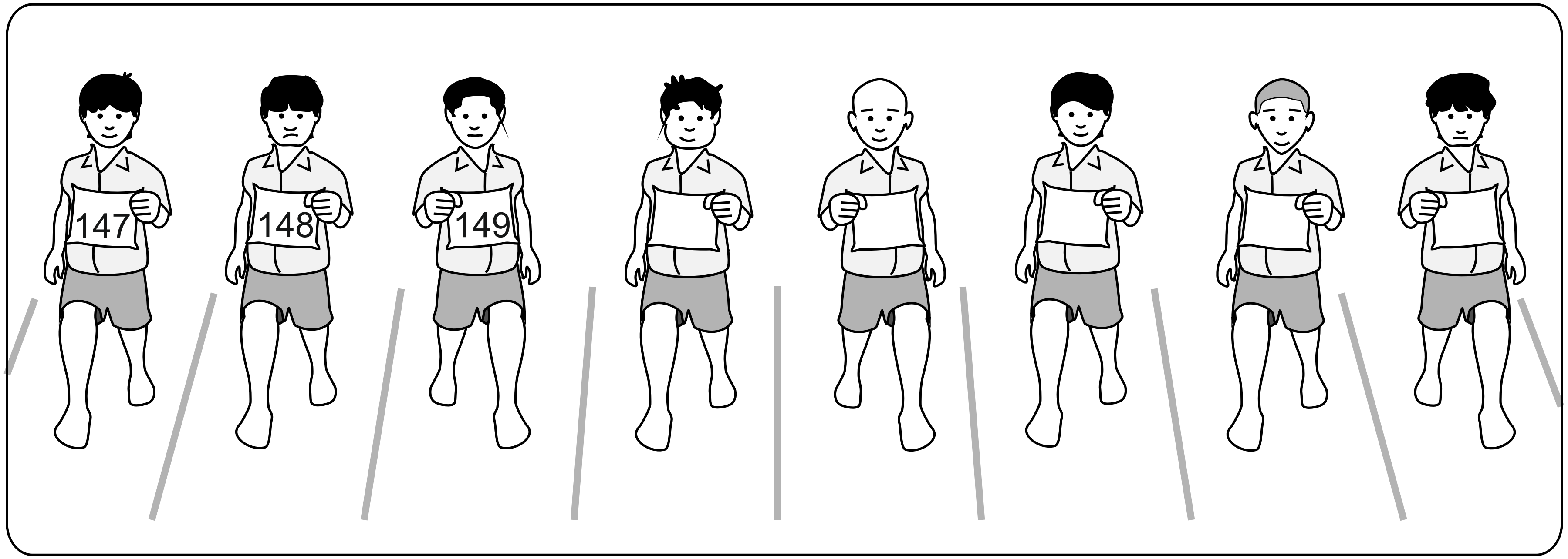


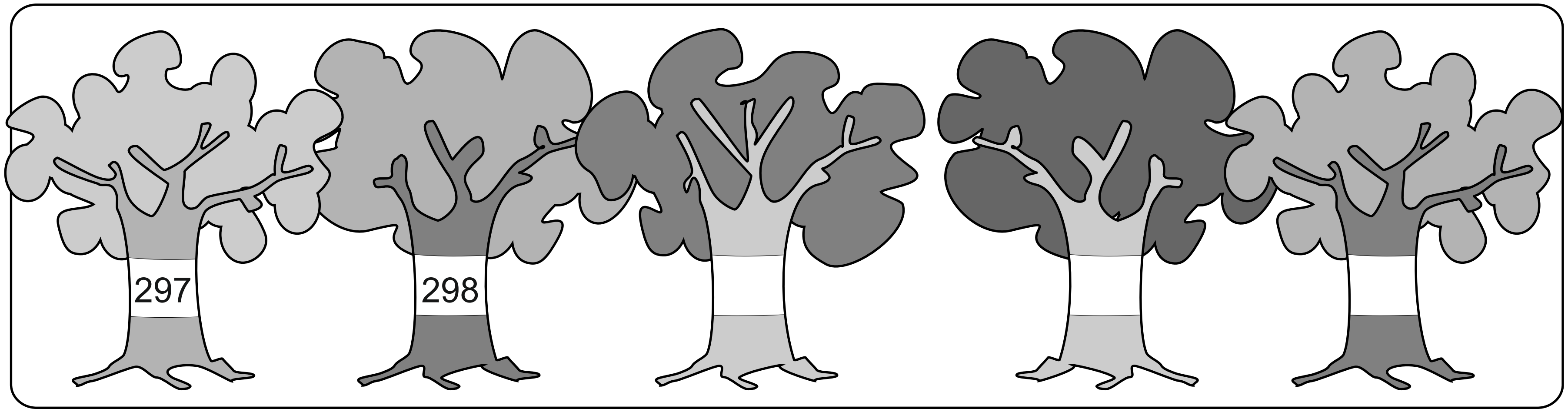
H	T	U

	Number	Hund-reds	Tens	Units	Expanded form
	3 4 5	3	4	5	3 0 0 + 4 0 + 5
					
					

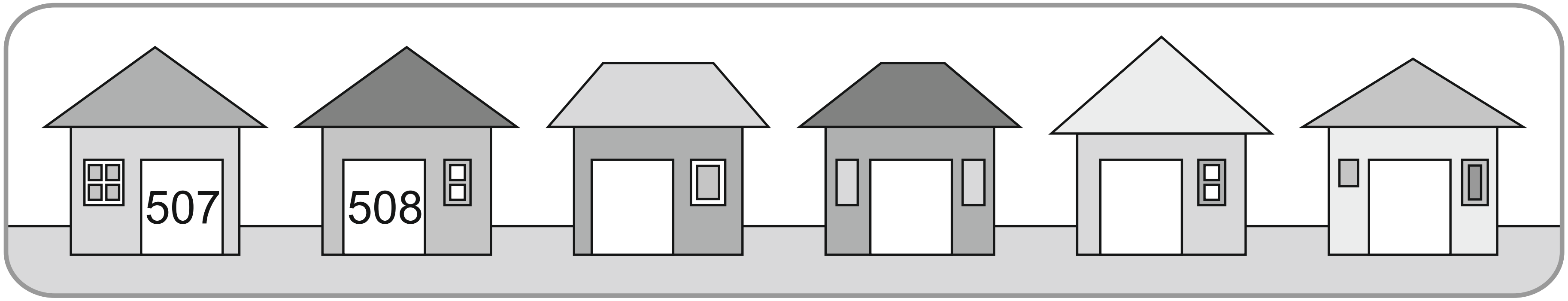
In 321 there are		Hundreds		Tens		Units
In 252 there are		Hundreds		Tens		Units
In 44 there are		Hundreds		Tens		Units
In 710 there are		Hundreds		Tens		Units
In 919 there are		Hundreds		Tens		Units
In 300 there are		Hundreds		Tens		Units
In 8 there are		Hundreds		Tens		Units

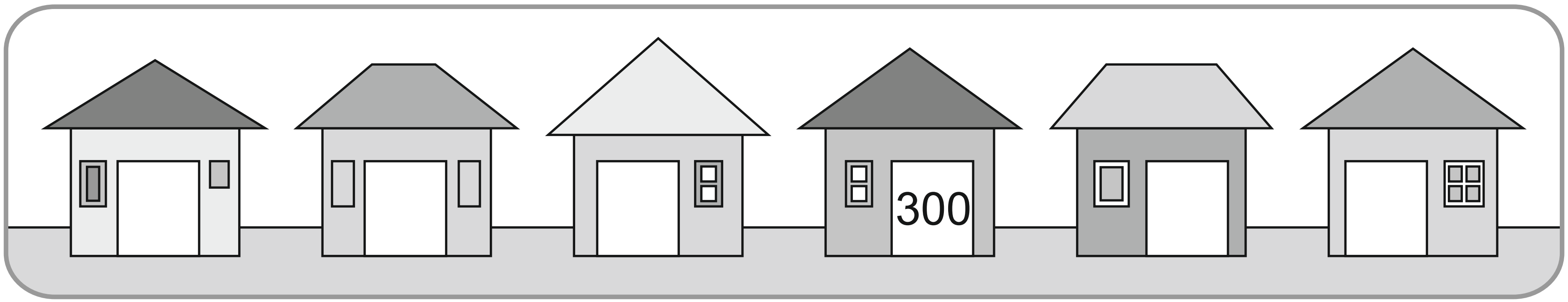
Write the numbers in sequence.





All the houses are numbered in sequence.
Some houses were painted and numbers were covered. Write the missing numbers.





Fill in the missing numbers.

113	114	115			

225	226		228		

400		402		404	

	709	710			

329					334

	800				

					999

Write the numbers in increasing sequence.

332, 333, 335, 334	☐ ☐ ☐ ☐
100, 103, 99, 101	☐ ☐ ☐ ☐
81, 80, 79, 78	☐ ☐ ☐ ☐
496, 498, 497, 499	☐ ☐ ☐ ☐
501, 500, 502, 503	☐ ☐ ☐ ☐
698, 697, 699, 700	☐ ☐ ☐ ☐
838, 839, 840, 841	☐ ☐ ☐ ☐

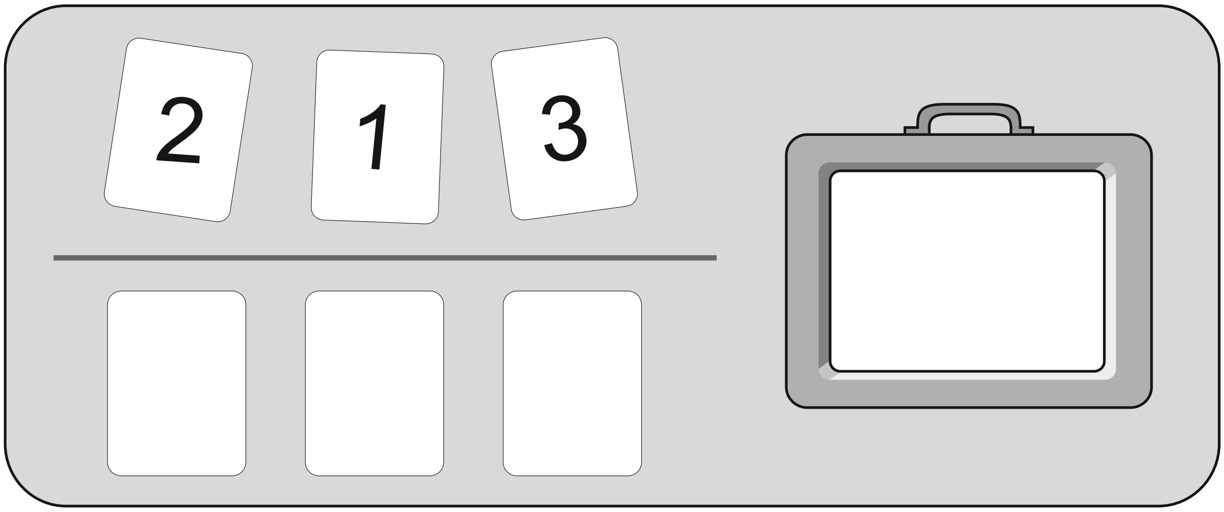
Write the numbers which follow in sequence.

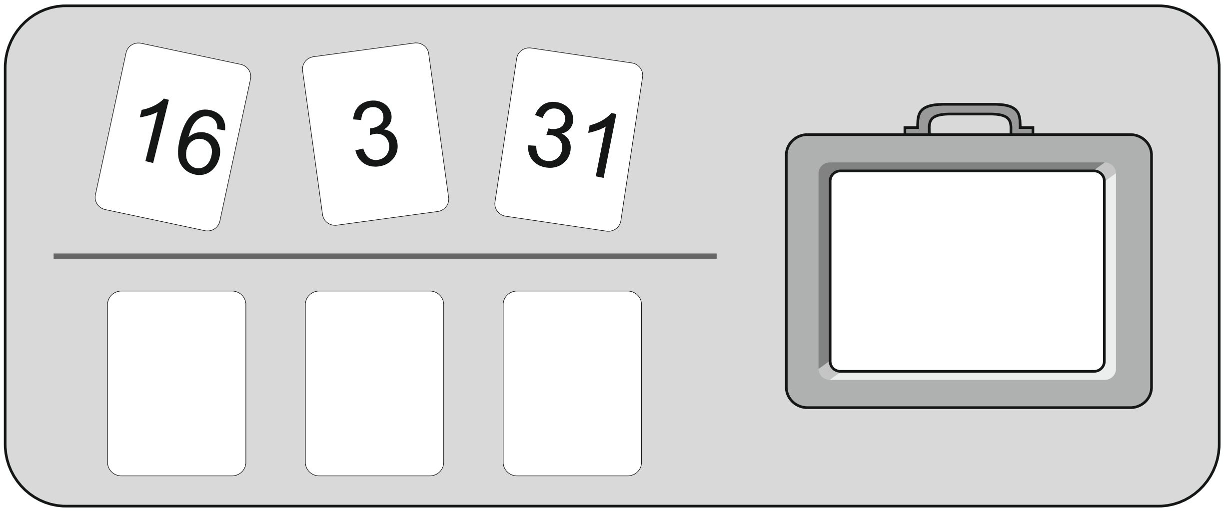
341	342							
501	502							
365	366							
547	548							
395	396							
800	801							
493	494							
899	900							

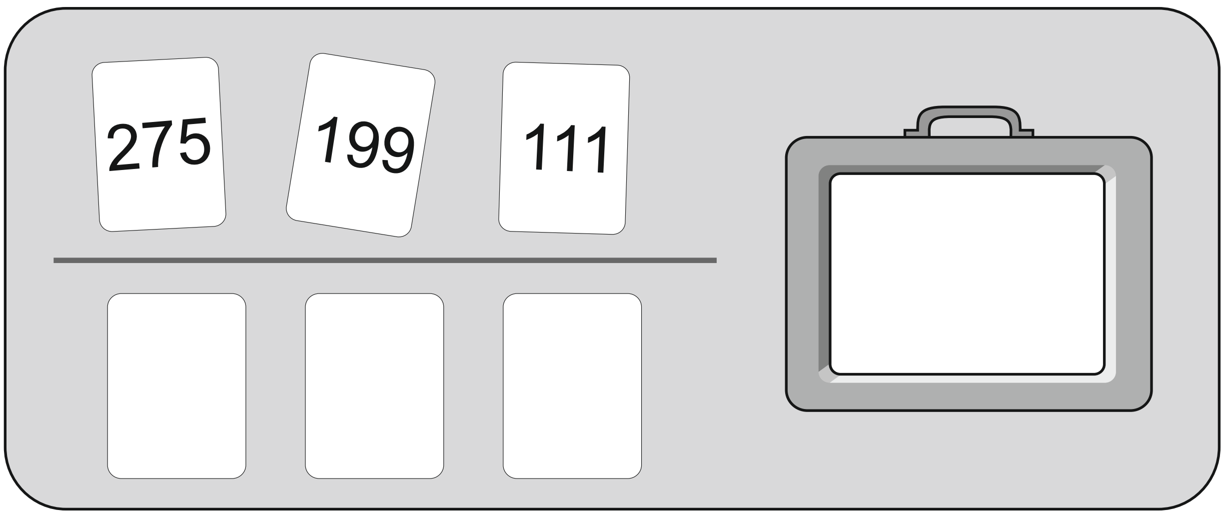
Write the previous number.

	22	23		51	52
	48	49		60	61
	111	112		231	232
	500	501		550	551
	900	901		785	786

Write the numbers in increasing sequence.
Write the smallest number on the slate.







Write the numbers in increasing sequence.

9	68	35			
63	36	35			
48	99	71			
75	99	98			
101	104	201			
900	899	771			
355	574	447			

Write the numbers in decreasing sequence.

91	35	90			
63	36	37			
75	14	99			
110	198	201			
174	189	177			
408	909	701			
680	550	470			

Colour the numbers in steps of 5 and write them below.

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

5, 10, 15, ____, ____, ____, ____, ____, ____, ____,

____, ____, ____, ____, ____, ____, ____, ____, ____, ____,

Colour the numbers in steps of 2 and write them below.

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

2, 4, 6, ____, ____, ____, ____, ____, ____, ____,

____, ____, ____, ____, ____, ____, ____, ____, ____, ____,

____, ____, ____, ____, ____, ____, ____, ____, ____, ____, Colour the numbers which come in steps of 4.

Write these numbers in the blanks below.

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

4 , 8 , 12 , ____, ____, ____, ____, ____, ____, ____,

____, ____, ____, ____, ____, ____, ____, ____, ____, ____,

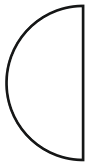
Colour the numbers which come in steps of 10.

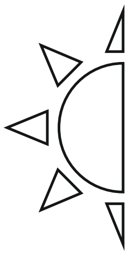
Write these numbers in the blanks below.

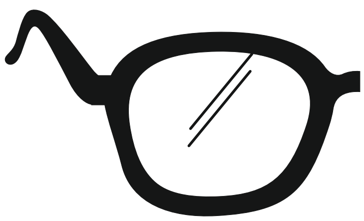
1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

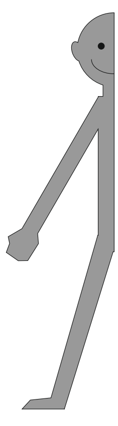
10 , 20 , 30 , ____, ____, ____, ____, ____, ____,

Half of each picture is shown. Complete the other half and draw the whole.

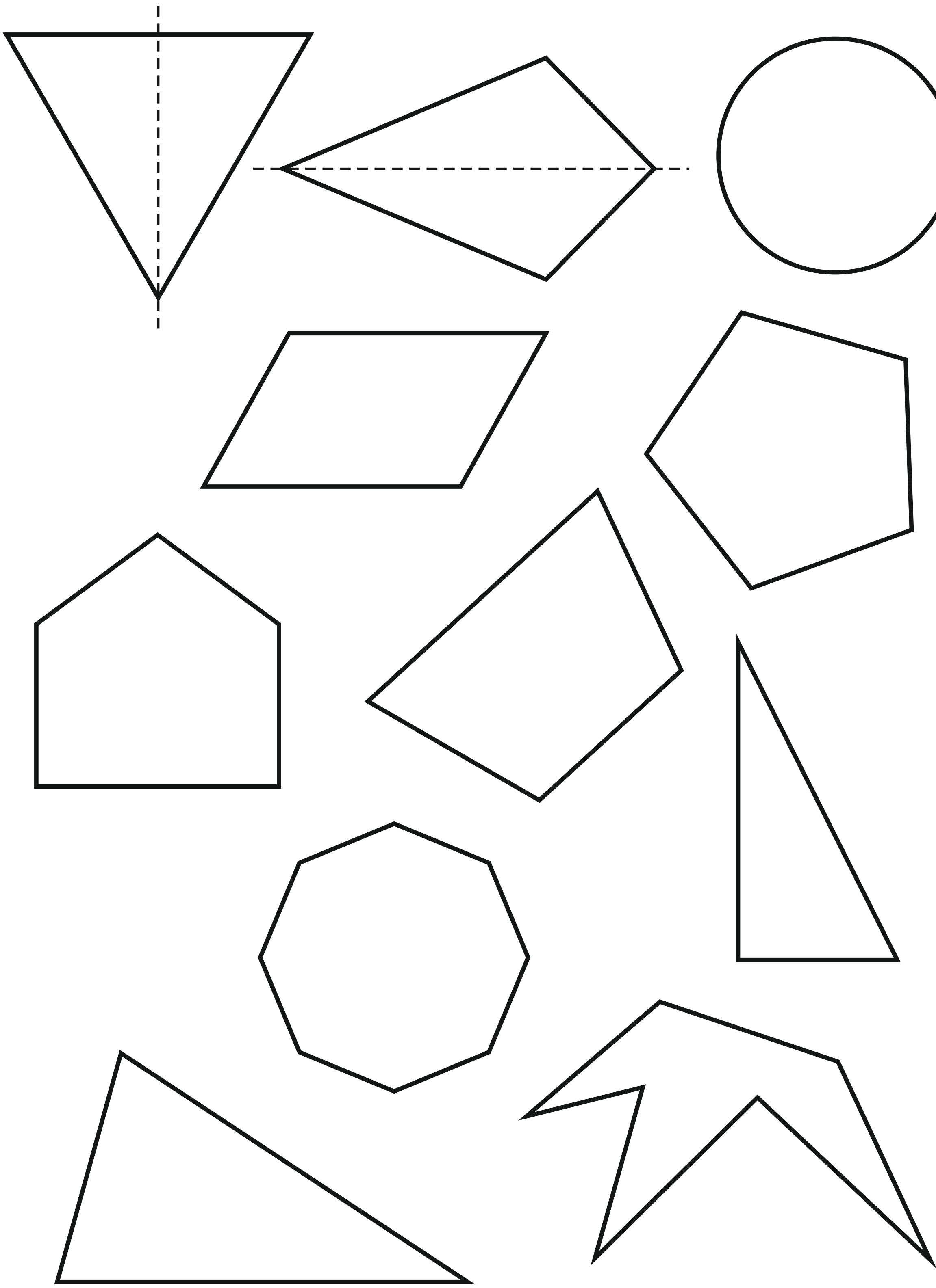






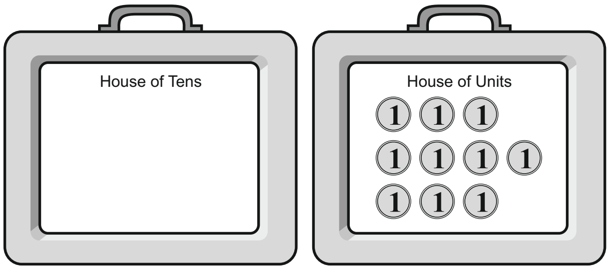


Draw the mirror line in each shape.
Colour these shapes which do not have a mirror line.



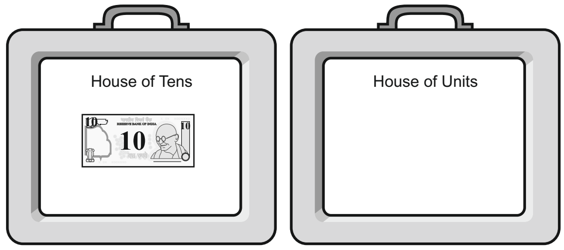
Look at the number of notes and coins in each house
and write the correct digits in each house.

Ten rupees



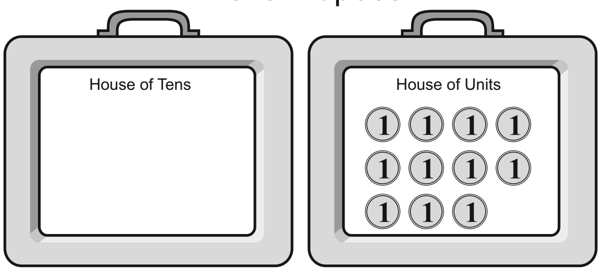
Tens	Units
	10

Ten rupees



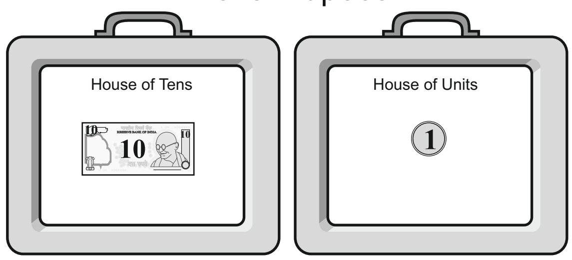
Tens	Units
1	0

Eleven rupees



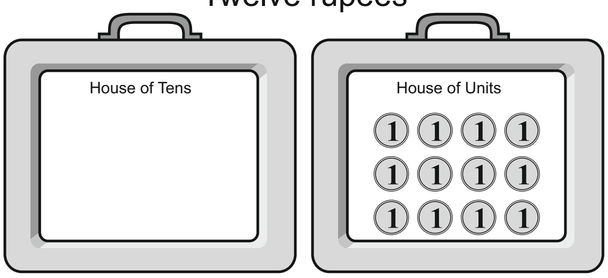
Tens	Units

Eleven rupees



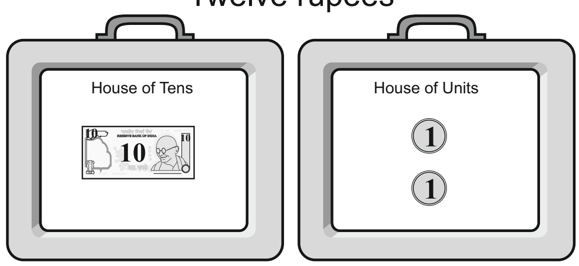
Tens	Units

Twelve rupees



Tens	Units

Twelve rupees

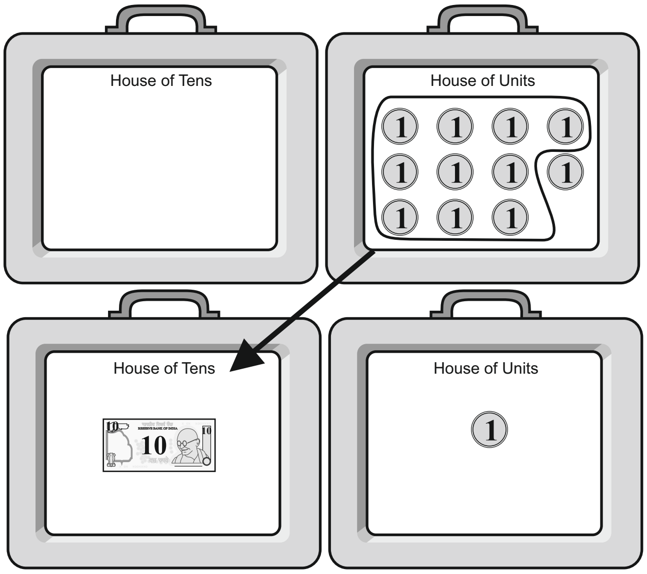


Tens	Units

Write each number in two different forms.

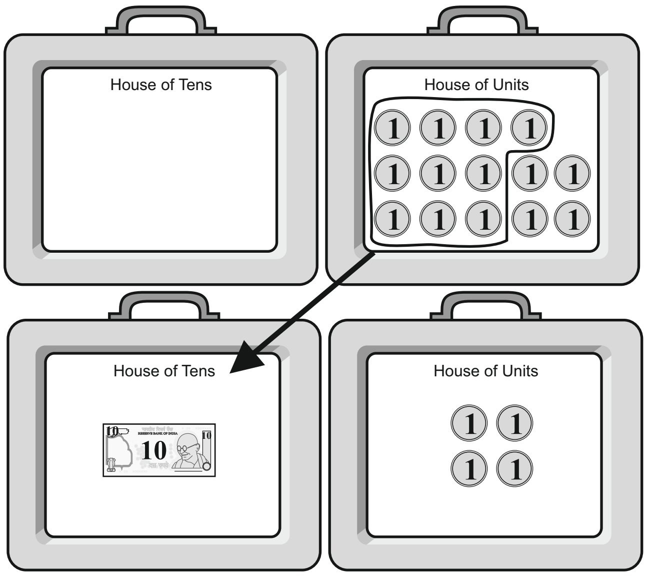
		Tens and Units		Only Units	
		Tens	Units	Tens	Units
12	→				
16	→				
17	→				
18	→				
15	→				
11	→				
10	→				
13	→				

Convert the given units into tens and units. Write the numerals for both forms.



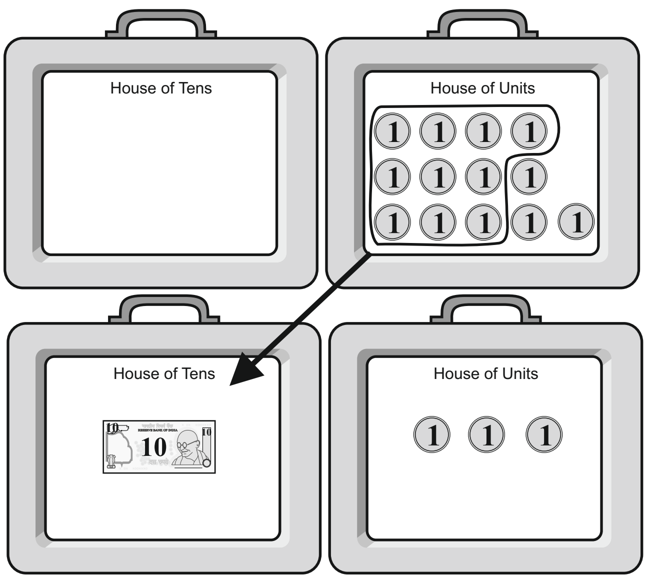
Tens	Units

Tens	Units



Tens	Units

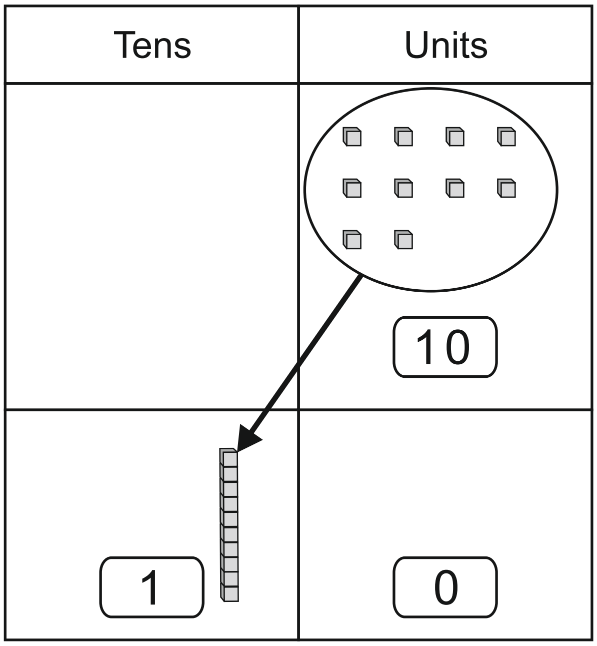
Tens	Units

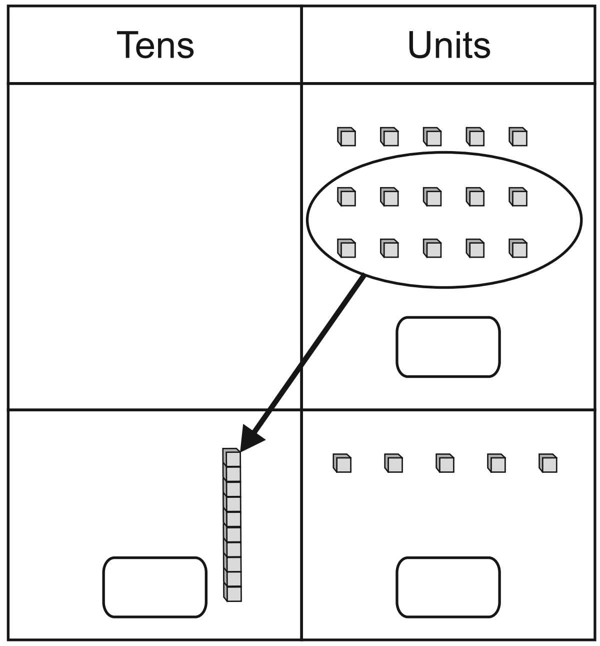


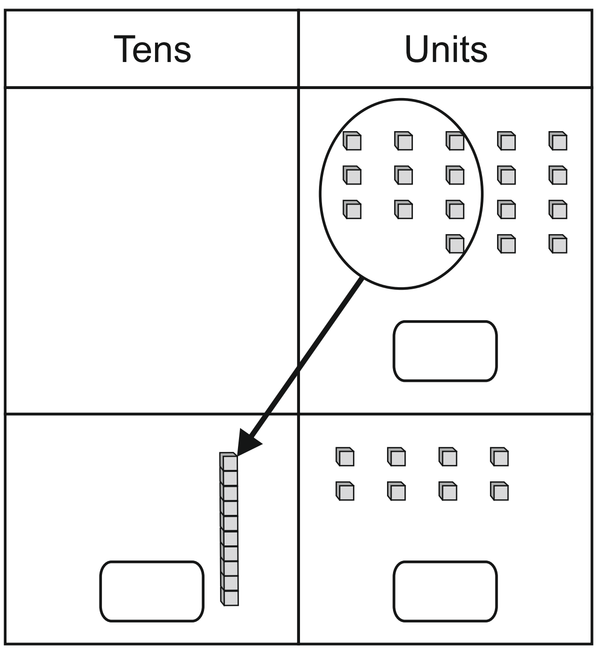
Tens	Units

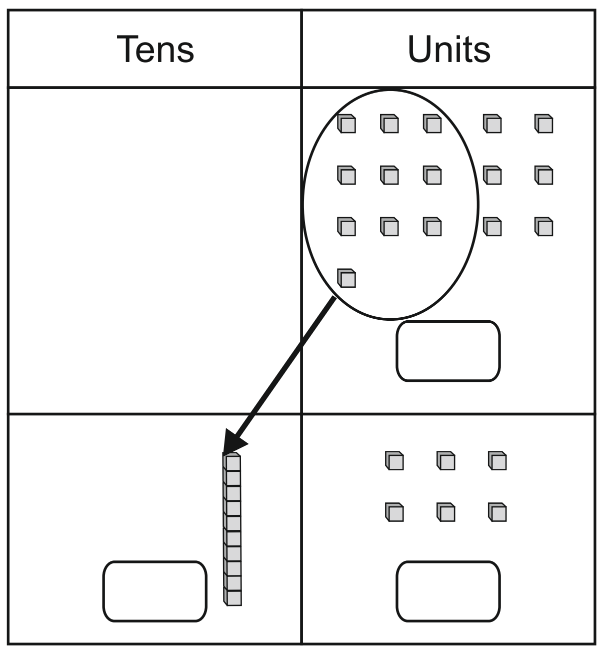
Tens	Units

Look at the form. Write the numerals for both forms.









Change ten units into one ten and write the number in tens and units.

Tens	Units
	13
1	3

13 Units

1 Tens 3 Units

Tens	Units
	17

Tens	Units
	15

Tens	Units
	10

Tens	Units
	14

Tens	Units
	11

Tens	Units
	16

Tens	Units
	12

Tens	Units
	18

	Tens	Units
		7
+		5
		12
	1	2

	Tens	Units
		8
+		5
		13

	Tens	Units
		7
+		3
		10

	Tens	Units
		4
+		7

	Tens	Units
		6
+		4

	Tens	Units
		6
+		7

	Tens	Units
		6
+		5
	1	1

		Units
		8
+		6

	Tens	Units
		9
+		4

	Tens	Units
		8
+		7

	Tens	Units
		5
+		9

	Tens	
		8
+		8

	Tens	Units
	3	4
+	1	7
	4	11
	5	1

	Tens	Units
	4	2
+	4	9
	8	11
	9	1

	Tens	Units
	6	7
+	1	7

	Tens	Units
	3	6
+	3	6

	Tens	Units
	7	1
+	1	9

	Tens	Units
	2	5
+	1	8

	Tens	Units
	3	5
+	4	5

	Tens	Units
	8	0
+	1	2

	Tens	Units
	7	0
+	2	0

	Tens	Units
	2	4
+	2	8

	Tens	Units
	1	7
+		6

	Tens	Units
	5	5
+		5

1) A mango tree had 58 mangoes on it. A second tree had 34 mangoes on it. What was the total number of mangoes on both trees?

	Tens	Units
	5	8
+	3	4
	8	12
	9	2

2) There are 24 boys and 26 girls in Chandu's class. How many students are there in all?

Tens	Units

3) Mummy has 42 rupees. Daddy has 49 rupees. How many rupees do they both together have ?

Tens	Units

4) Sister planted 19 aster plants and 15 rose plants. How many plants were planted in all?

Tens	Units

Do the addition. Write an example from real life in words.

	Tens	Units
	2	4
+	1	6

	Tens	Units
	3	6
+	3	6

	Tens	Units
	3	6
+	4	7

	Tens	Units
	2	4
+	2	8

	H	T	U
	3	6	5
+	2	0	7

	H	T	U
	5	6	7
+	3	5	3

	H	T	U
	3	6	9
+	2	1	2
+		3	9
	5	10	20
	6	2	0

	H	T	U
	6	2	0
+	1	9	9

	H	T	U
	3	3	7
+	5	2	4

	H	T	U
	4	6	9
+	3	1	1
+	1	3	3

	H	T	U
	8	2	6
+	1	4	8

	H	T	U
	4	3	5
+	4	6	9

	H	T	U
	2	7	8
+	3	9	8
+		2	5

1) There are 415 mangoes in one crate.
There are 224 mangoes in another crate.
How many mangoes in total?

	H	T	U
+			

2) There are 625 boys and
225 girls in Rama's school.
How many students in all?

	H	T	U
+			

3) Ramu has 211 marbles, Shamu has 535
and Mahesh 72 marbles. How many
marbles in all?

	H	T	U
+			

4) In a garden there are 512 banana trees,
192 guava trees and 26 custard apple trees.
How many trees in all?

	H	T	U
+			

Do the addition . Write an example from real life in words.

	H	T	U
	3	2	0
+	2	4	0

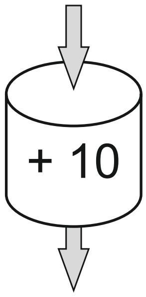
	H	T	U
	5	4	5
+	2	8	9

	H	T	U
	2	6	8
+	1	0	1
+		8	7

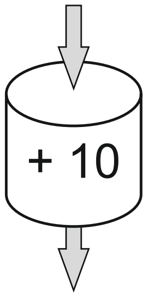
	H	T	U
		4	1
+	2	7	2
+	3	9	5

Machines That Change the Number put into them :

This is a ‘ Add 10' machine. Whatever number you put in, it gives out a number by adding 10 to your number. (If needed use currency notes)

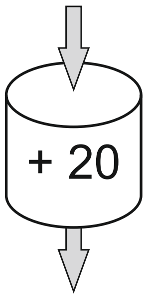


	2	15	60	123	502	600	1000
+10	12						



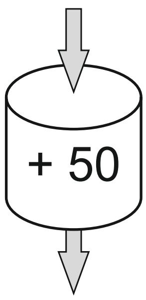
	25						
+10	35	80	100	234	610	2100	3000

This is a ‘ Add 20' machine. Fill in the numbers. (If needed use currency notes)



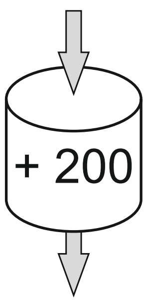
	16	80		90			
+20	36		200		1010	1100	5000

This is a ‘ Add 50' machine. Fill in the numbers. (If needed use currency notes)



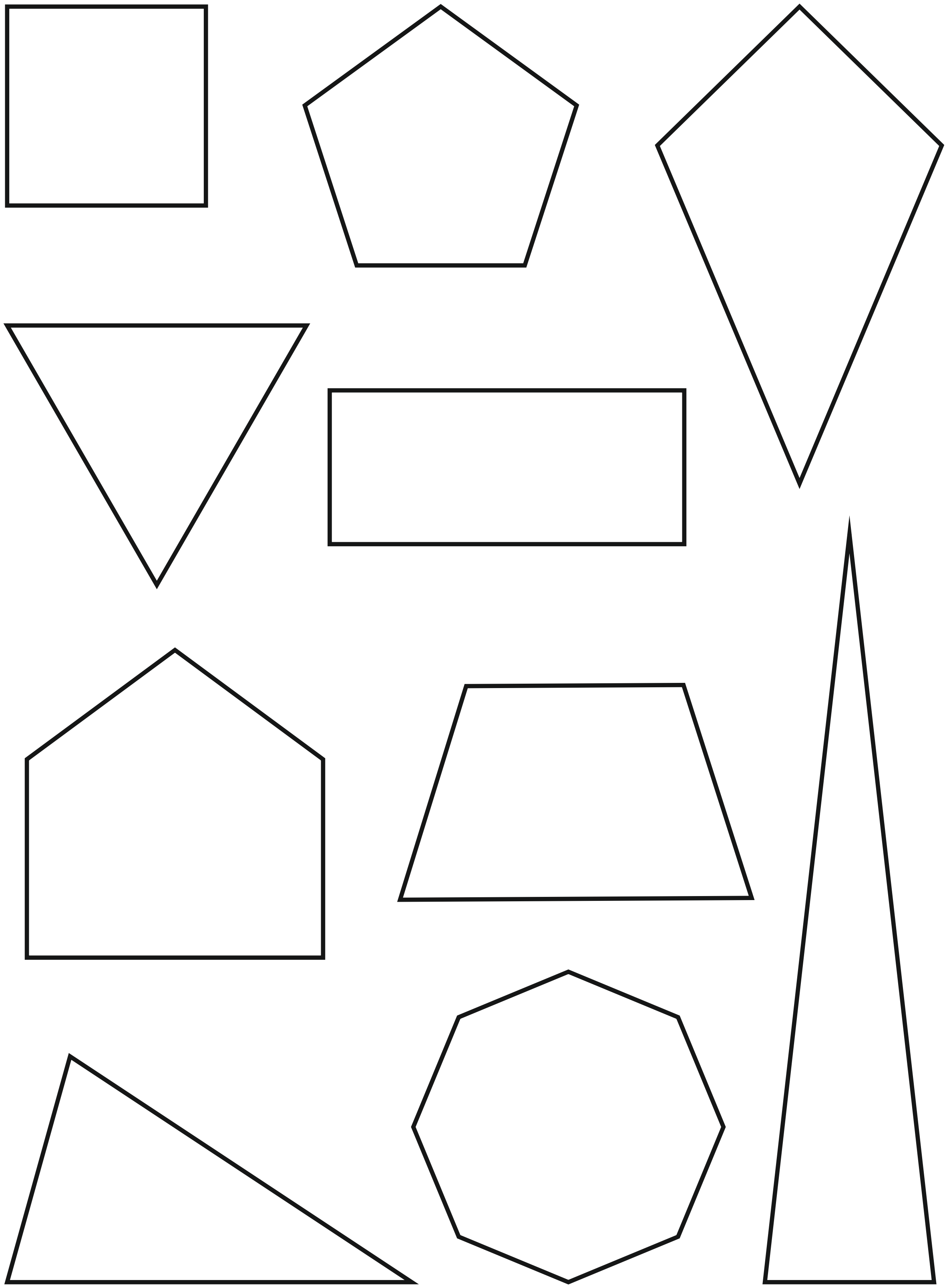
	20	90		290	1080		
+50	70		100			1100	5000

This is a ‘ Add 200' machine. Fill in the numbers. (Use currency notes if necessary)

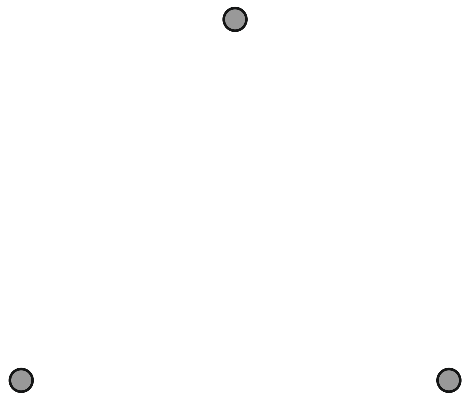


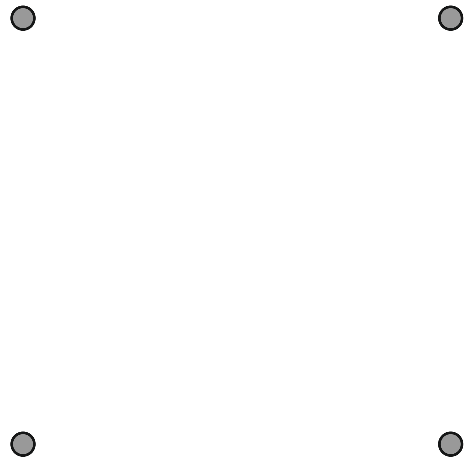
	10	300	800		2030	3800	
+200	210			1100			4000

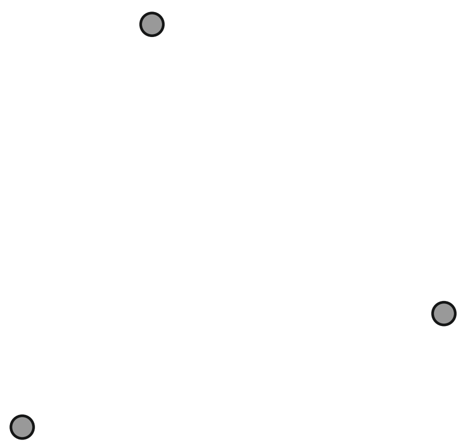
Count the number of vertices. Write it inside each shape.



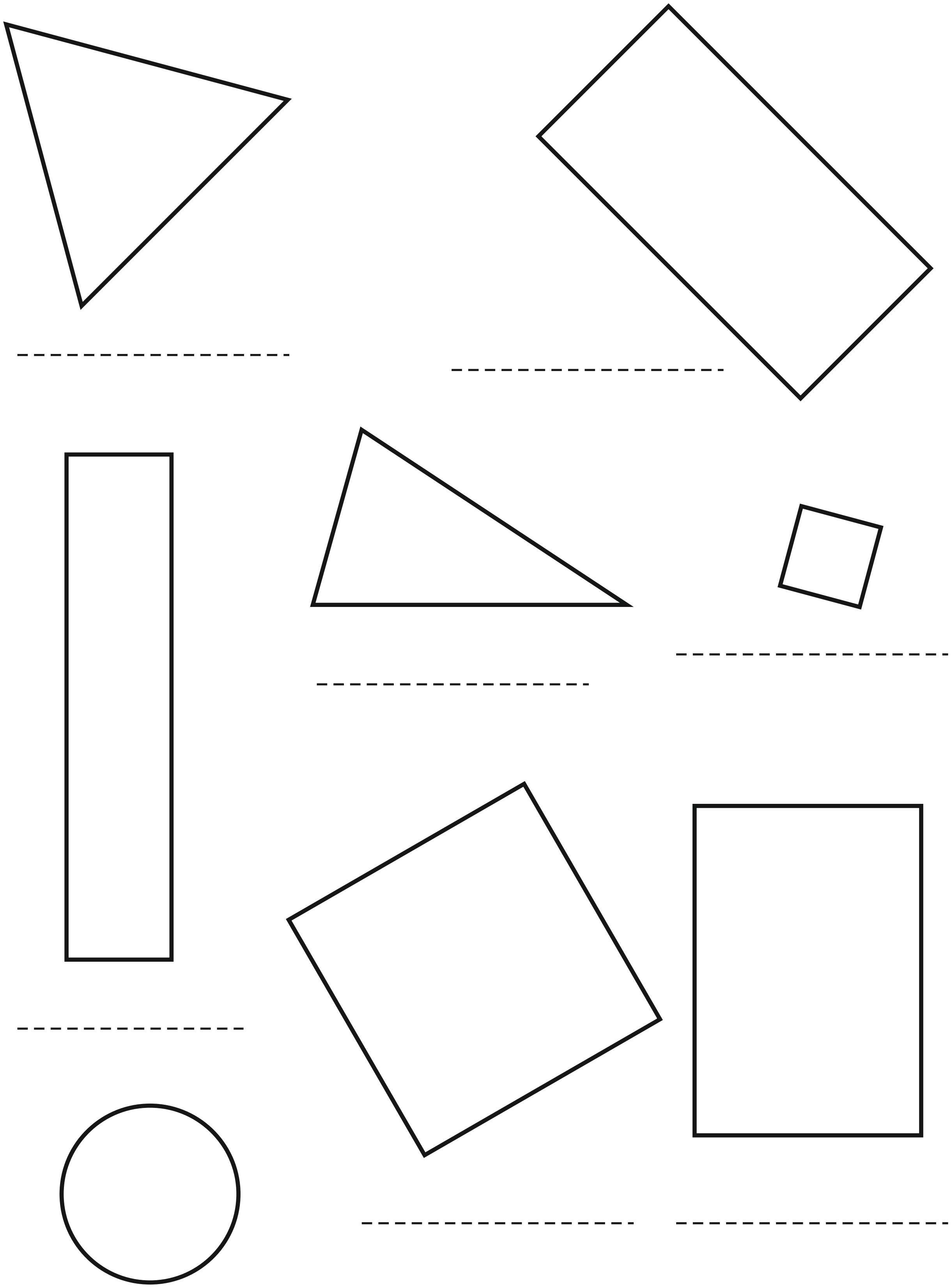
Join the dots and write the name of the shape.







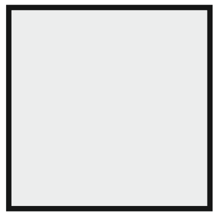
Write the name of the shape.



This shape is a ____________

It has ____ edges.

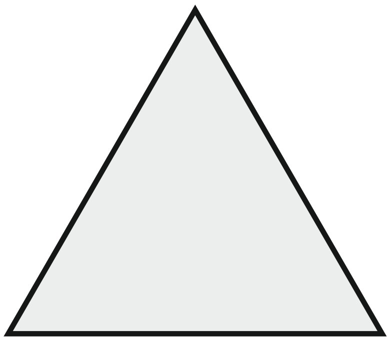
It has ____ vertices.



This shape is a ____________

It has ____ edges.

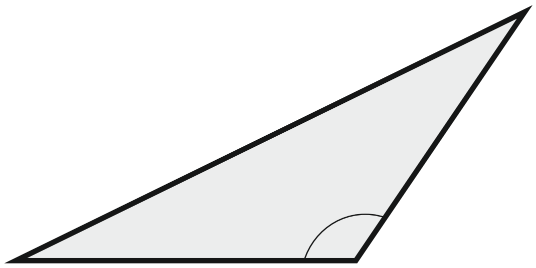
It has ____ vertices.



This shape is a ____________

It has ____ edges.

It has ____ vertices.



This shape is a ____________

It has ____ edges.

It has ____ vertices.

Colour three different rectangles.

Colour three different squares.

For each shape write the names of three things which have that shape.

Rectangle	Square	Circle	Triangle
________	________	________	________
________	________	________	________
________	________	________	________

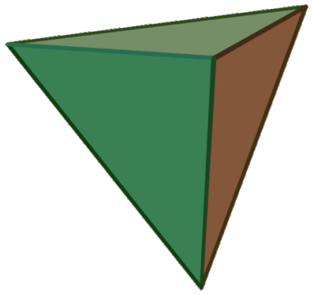
Draw a small and a big rectangle.

Draw a small and a big square.

Draw two different triangles.

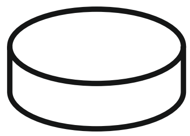
Draw a small and a big circle.

How many edges? How many vertices? Count and Write.

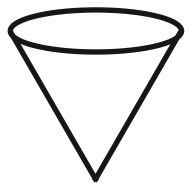
	Edges	Vertices
	Edges	Vertices

Join the matching pairs.

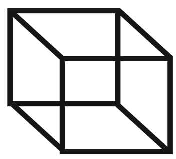
A flat shape with four vertices



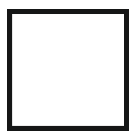
A cube with eight vertices



A shape with two flat circles

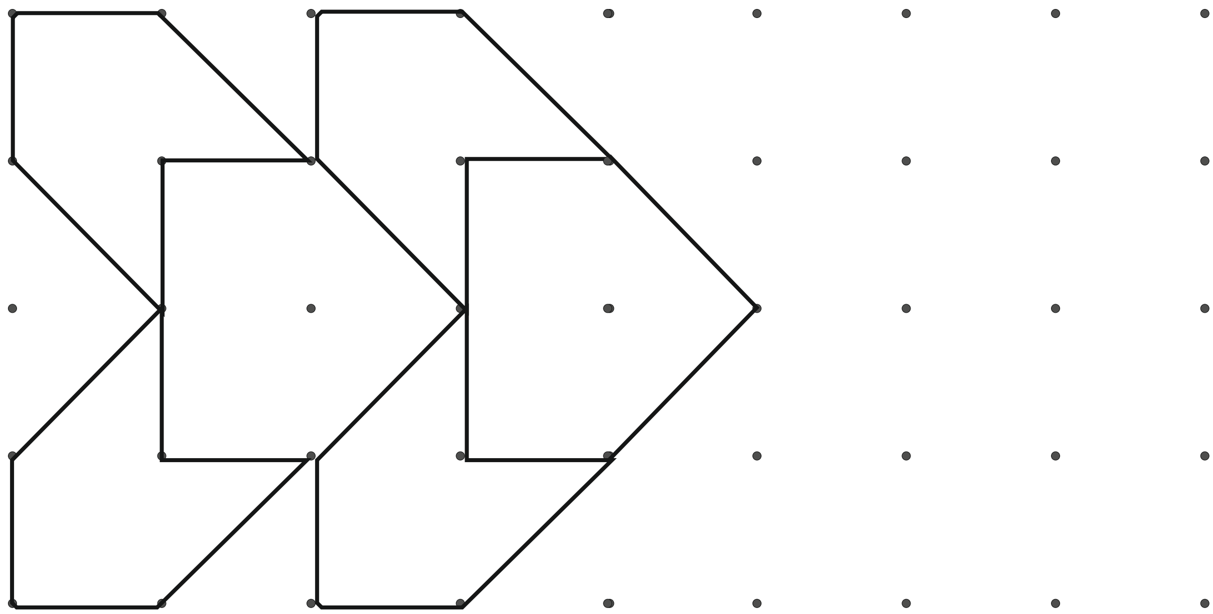


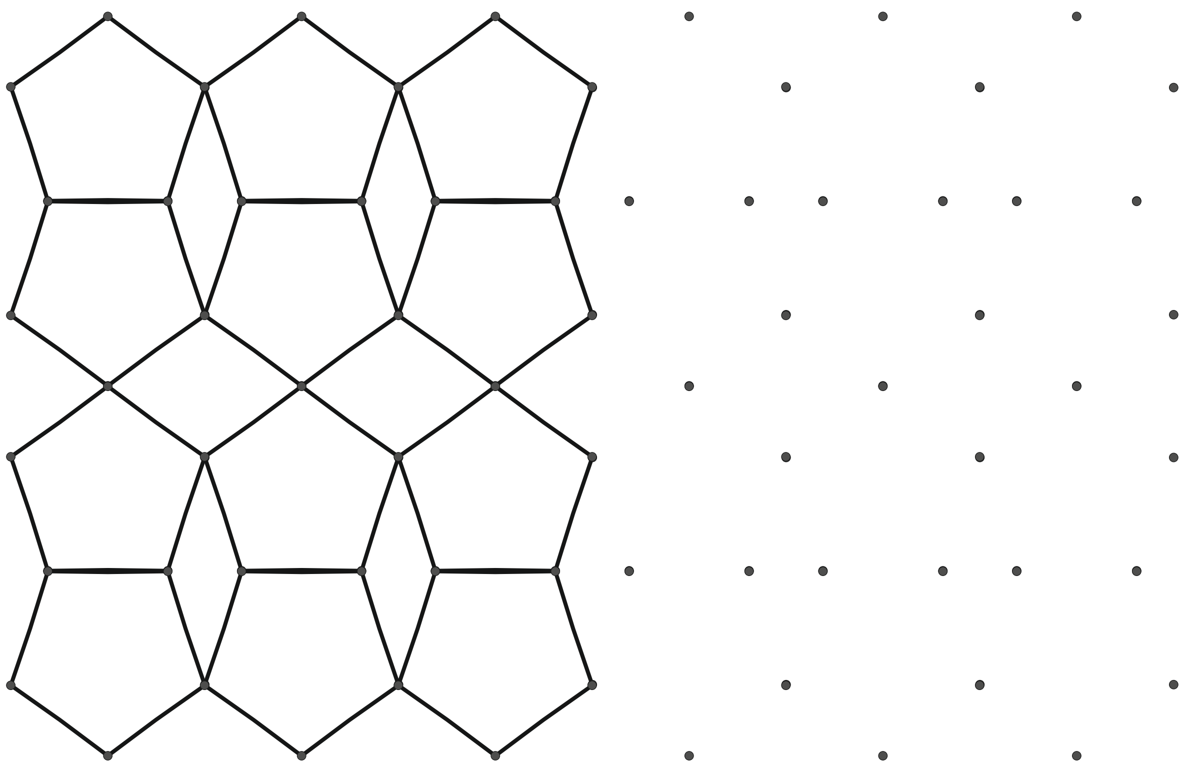
A shape with one flat circles



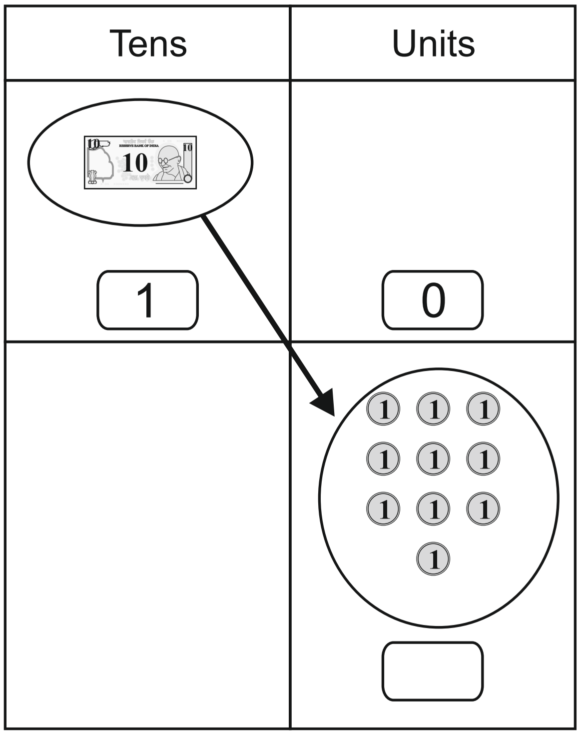
Draw a shape which has no vertices :

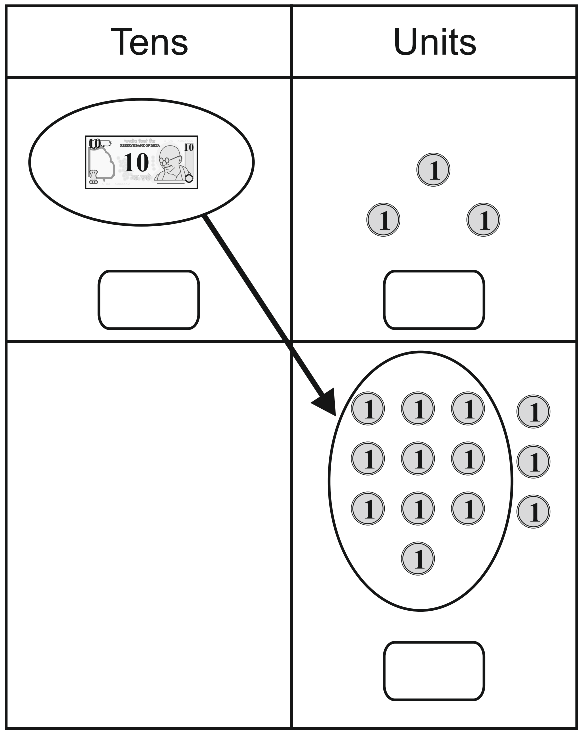
Join the dots to complete the patterns.

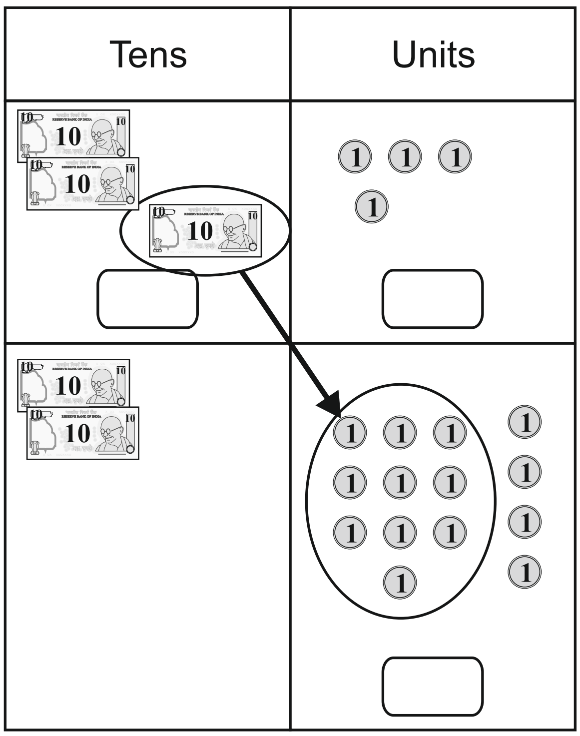


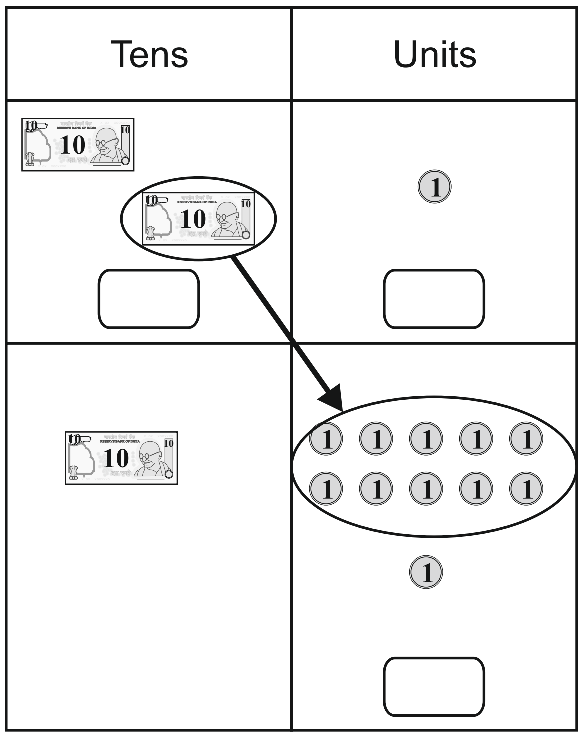


Change a ten into units and write the number in both forms.

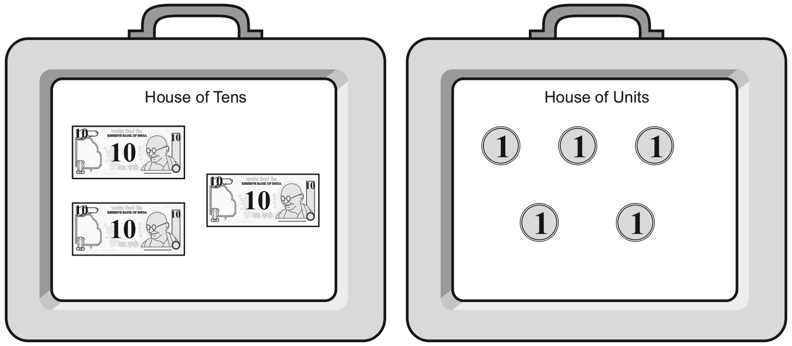




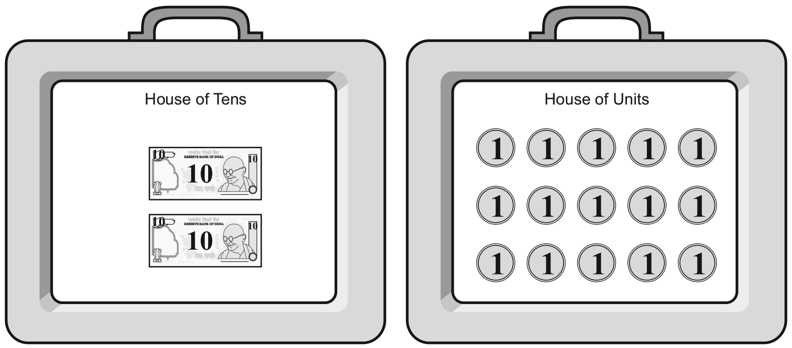




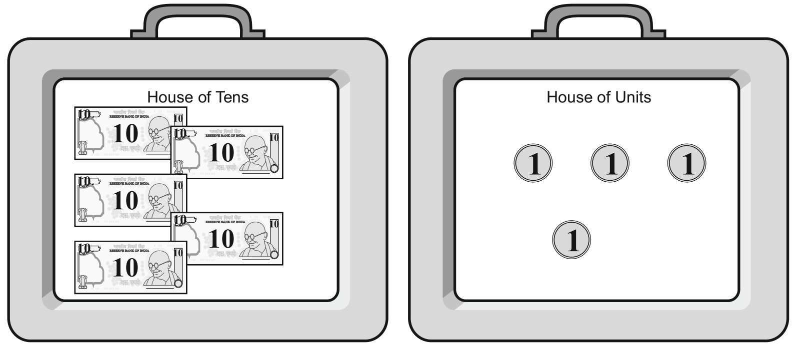
Convert one ten into units and write the number for each form.



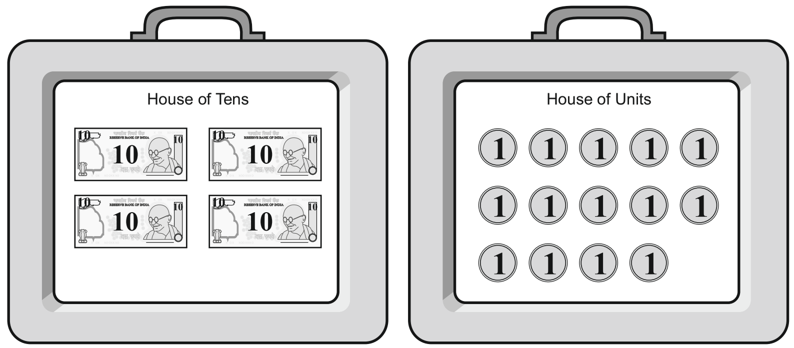
Tens	Units
3	5



Tens	Units
2	15



Tens	Units



Tens	Units

Change one ten into units and write the number for each form.

Tens	Units
2	3

2 Tens 3 Units →

Tens	Units
1	13
~~2~~	~~3~~

1 Ten 13 Units

Tens	Units
3	5

3 Tens 5 Units →

Tens	Units
2	15
~~3~~	~~5~~

2 Tens 15 Units

Tens	Units
3	6

→

Tens	Units
3	6

Tens	Units
3	3

→

Tens	Units
3	3

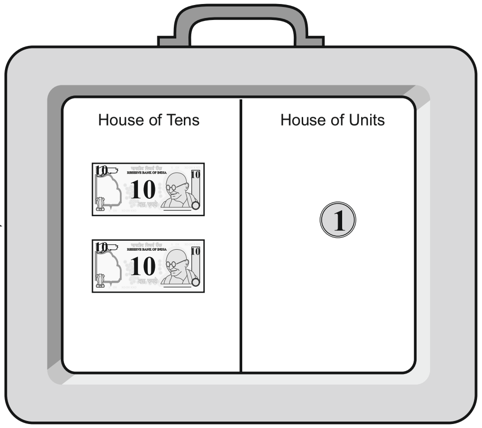
Tens	Units
8	0

→

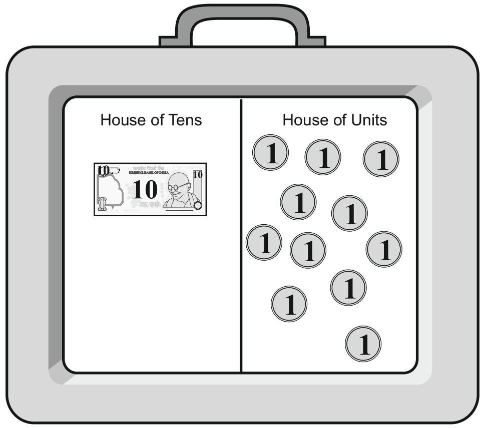
Tens	Units
8	0

Make each number in three different forms and write the numerals for each form.

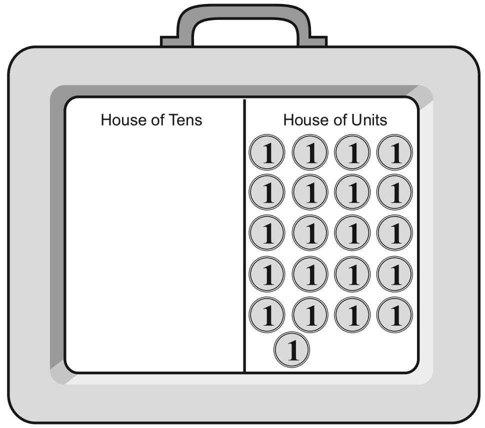
21



Tens	Units

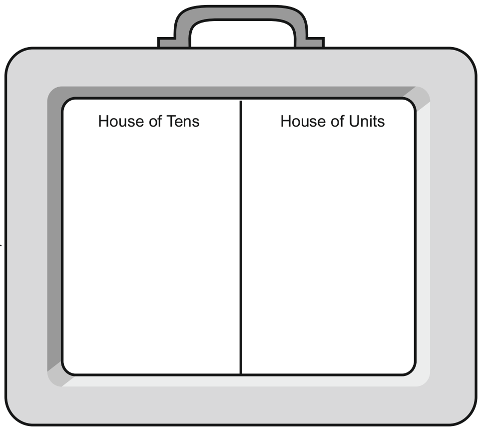


Tens	Units

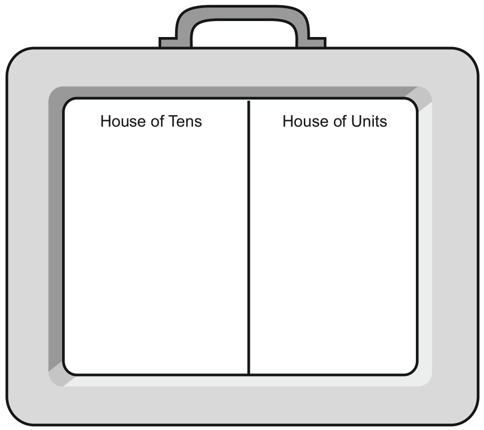


Tens	Units

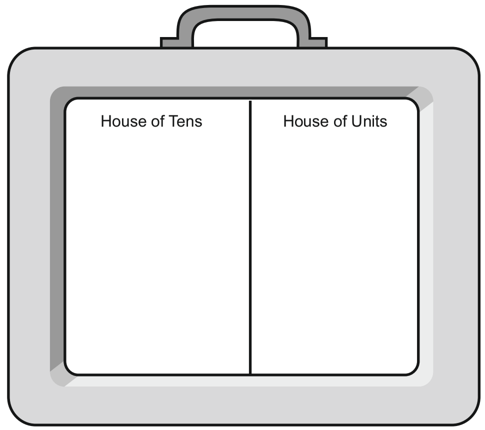
30



Tens	Units



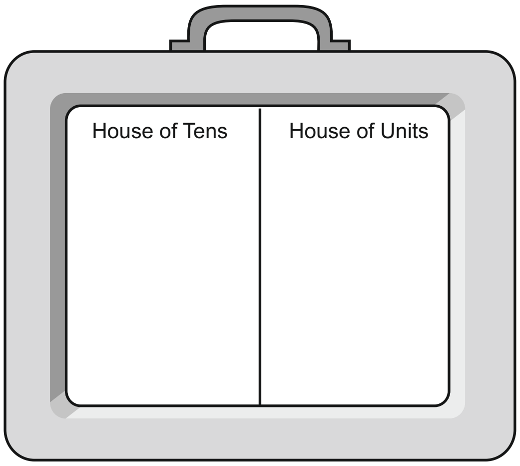
Tens	Units



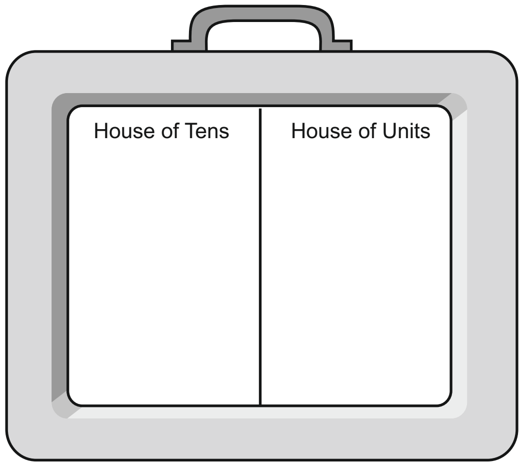
Tens	Units

Draw the number in four different forms and write the numeral for each form.

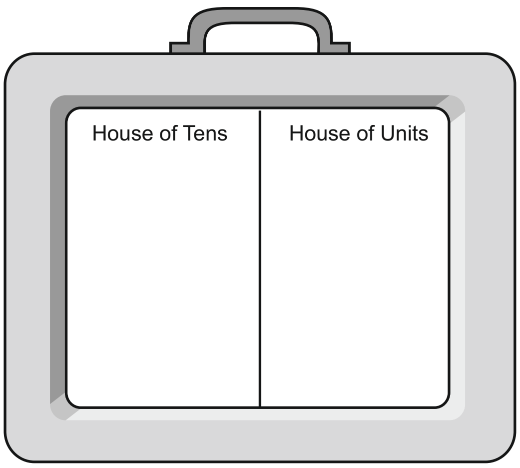
34



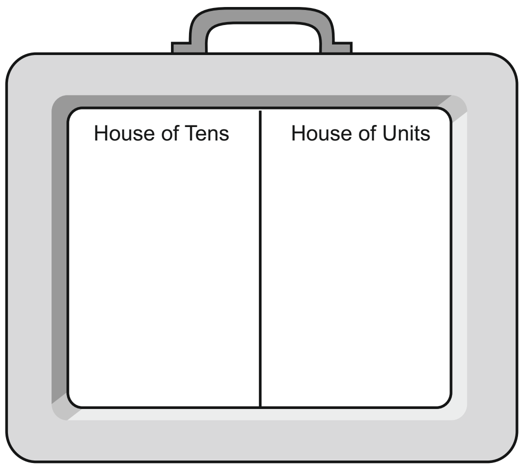
Tens	Units



Tens	Units



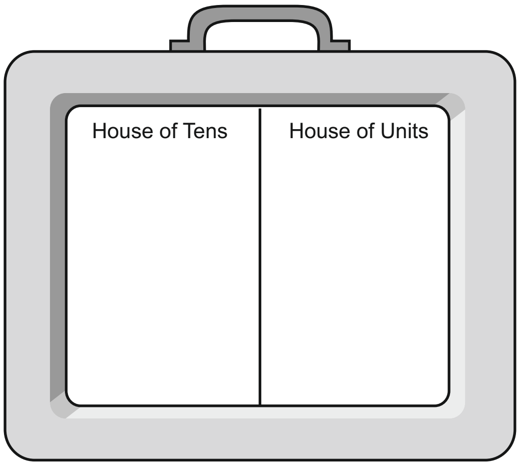
Tens	Units



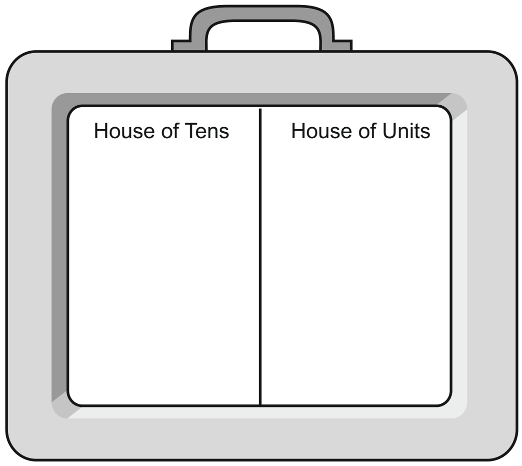
Tens	Units

Draw the number in four different forms and write the numeral for each form.

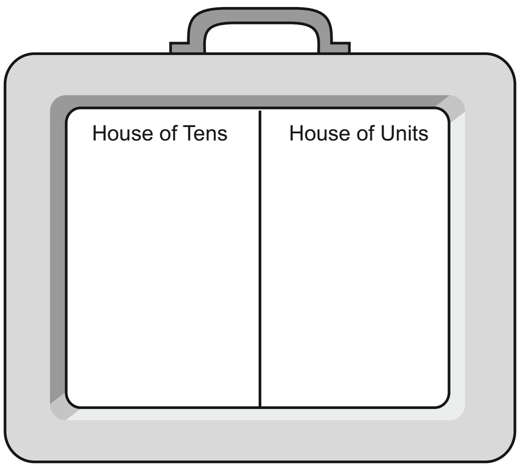
52



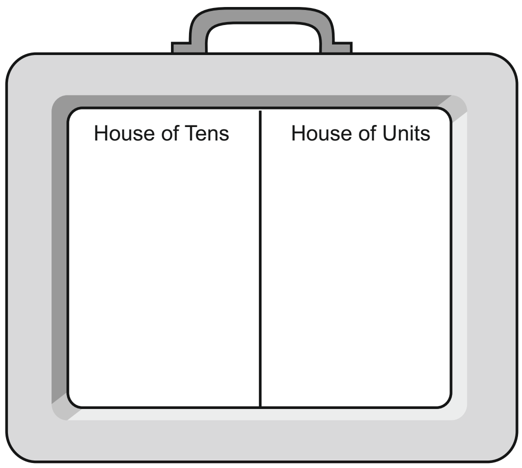
Tens	Units



Tens	Units



Tens	Units



Tens	Units

	Tens	Units
	3	15
	~~4~~	~~5~~
−	2	8
	1	7

	Tens	Units
	6	2
−	1	9

	Tens	Units
	4	0
−	1	8

	Tens	Units
	3	0
−		9

	Tens	Units
	5	7
−	2	8

	Tens	Units
	6	3
−	3	6

	Tens	Units
	7	7
−	3	2

	Tens	Units
	4	4
−	1	8

	Tens	Units
	5	0
−	3	1

	Tens	Units
	2	5
−	1	5

	Tens	Units
	9	2
−	8	9

	Tens	Units
	5	2
−		8

1) There are 42 students in Chanda's class. 26 are girls.
How many of the students are boys?

	Tens	Units
	3	12
−	~~4~~ 2	~~2~~ 6
	1	6

2) Sakharam purchased jaggery worth 17 rupees. He gave the shopkeeper 50 rupees.
How much change did he recieve?

Tens	Units

3) There were 31 parrots on a tree.
14 flew away. How many remained?

Tens	Units

4) There were 70 bags of wheat in the shop. 38 bags were sold.
How many remained?

Tens	Units

1) One mango tree had 58 mangoes. The other had 34 mangoes. What was the total number of mangoes on both trees?

	Tens	Units
	3	12
+	4	2
	2	6
	1	6

2) There are 24 boys and 26 girls in Chandu's class. How many students are there in all?

Tens	Units

3) Mummy has 42 rupees. Daddy has 49 rupees. How many rupees do they both have?

Tens	Units

4) Sister planted 19 aster plants and 15 roses plants. How many plants in all?

Tens	Units

	H	T	U
	7	8	8
−	3	9	8

	H	T	U
	3	5	6
−	1	4	5

	H	T	U
	6	9	5
−	2	0	8

	H	T	U.
	5	3	4
−	2	1	2

	H.	T	U
	6	0	0
−	2	0	1

	H	T	U
	3	6	5
−	2	0	7

	H	T	U
	4	0	0
−		9	5

	H	T	U
	7	1	5
−	1	2	6

	H	T	U
	3	6	9
−	2	8	9

1) There are 290 students in a school. Of these 151 are girls. How many boy students are there?

	H	T	U
−			

2) There were 205 ladoos in the box. 195 were distributed. How many remain?

	H	T	U
−			

3) Shekhar made 736 akash kandeels. He sold 549. How many remained with him?

	H	T	U
−			

4) There were 856 baloons tied in the circus tent. 663 burst. How many balloons remained?

	H	T	U
−			

Look at the calendar page below and answer the questions.

January 2008

Monday		7	14	21	28
Tuesday	1	8	15	22	29
Wednesday	2	9	16	23	30
Thursday	3	10	17	24	31
Friday	4	11	18	25	
Saturday	5	12	19	26	
Sunday	6	13	20	27	

1) How many days were there in this month? ____________________

2) What day was the 9th? ____________________

3) How many Thursdays were there in this month? ____________________

4) What was the date of the first Tuesday in the month? ____________

5) What was the date of the last Friday of the month? ____________

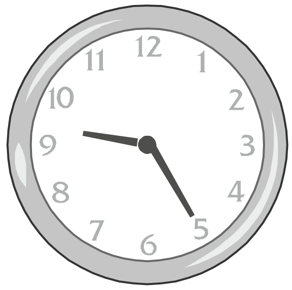
6) How many weeks are there between the 8th and 22nd? __________

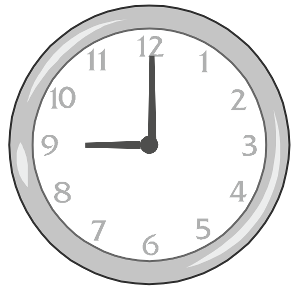
7) What was the last day of the month? ____________________

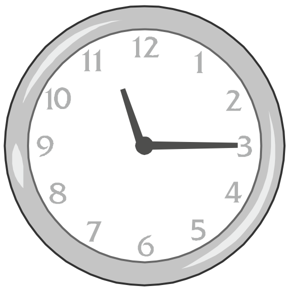
8) What was the first day of the next month? ____________

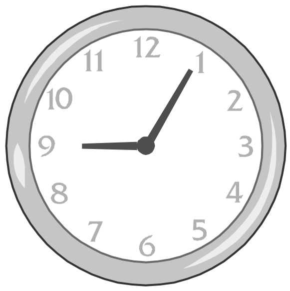
Write the time.

1:15

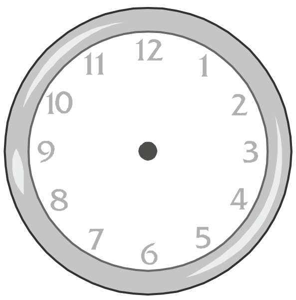




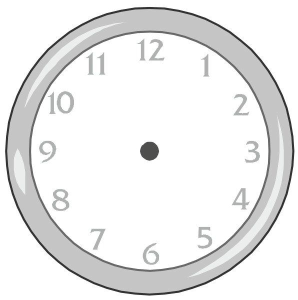




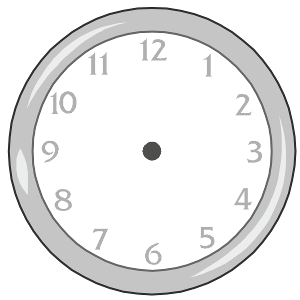
Draw the hands of the clock to show the time written below.



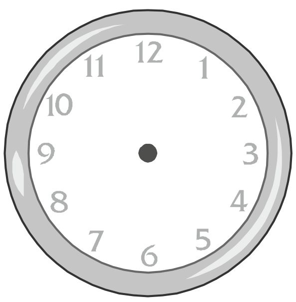
2:15



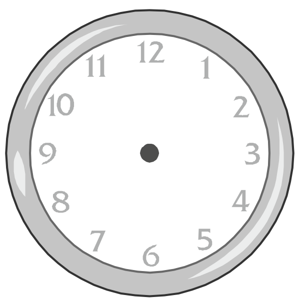
3:45



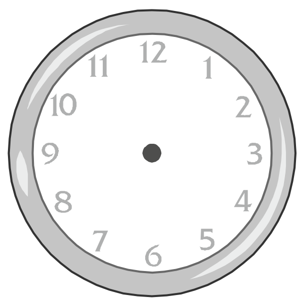
4:15



9:00

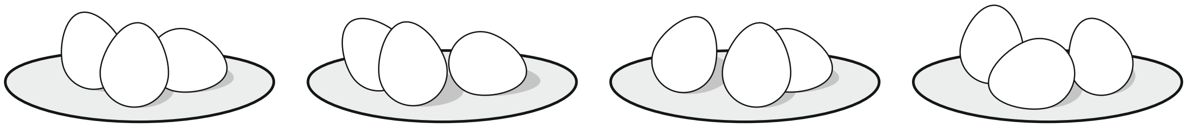


10:45

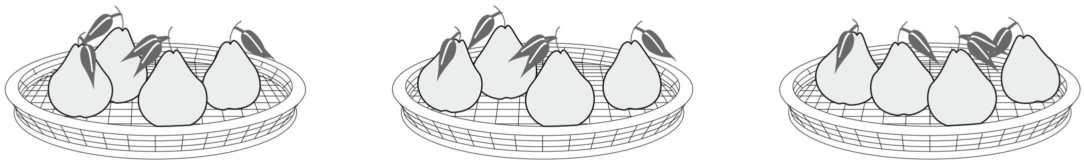


7:30

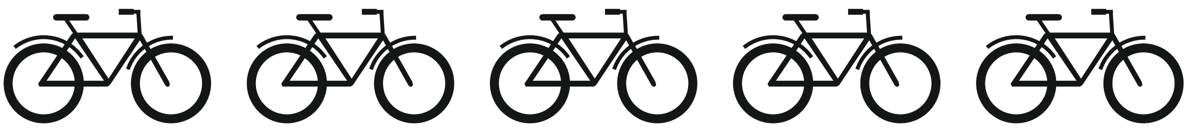
Two lions, how many paws?



3 eggs in each plate. 4 plates in all. How many eggs in all?

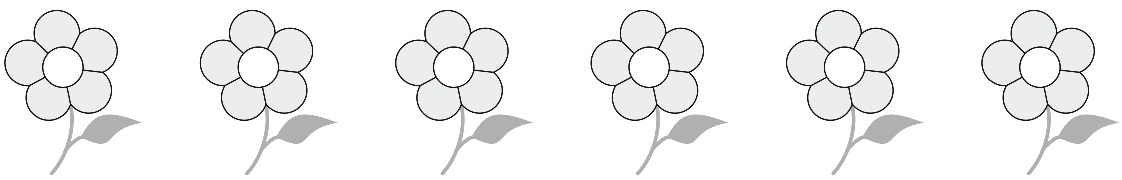


4 pears in each basket and 3 baskets. How many pears in all?

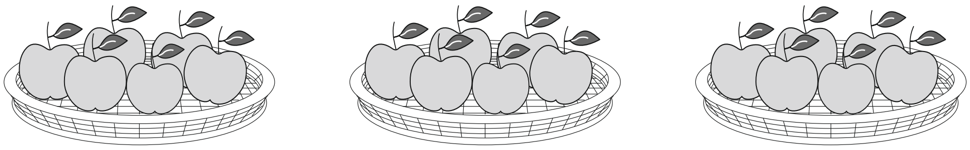


5 cycles. How many wheels in all?

4 spiders have how many legs in all?

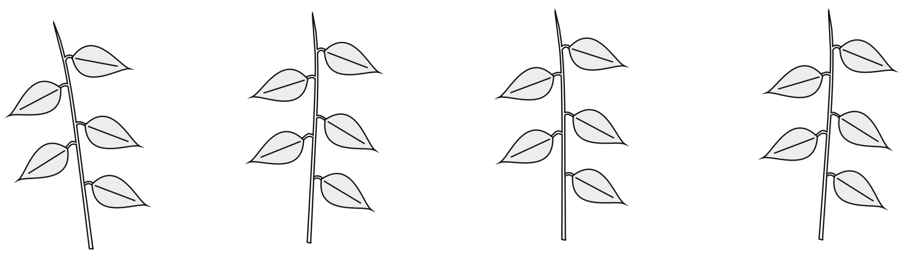


6 flowers, each with 5 petals. How many petals?



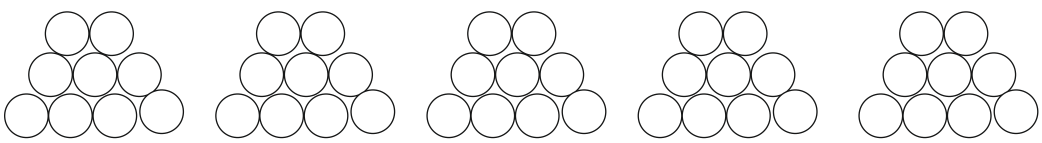
$6 + 6 + 6 = \square$

Three times six apples $= 3 \times 6 = \square$



$5 + 5 + 5 + 5 = \square$

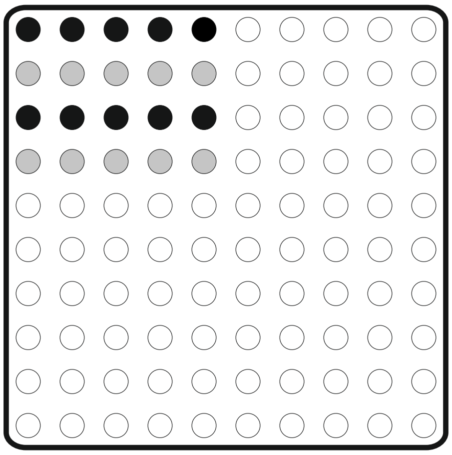
Four times five leaves $= 4 \times 5 = \square$



$9 + 9 + 9 + 9 + 9 = \square$

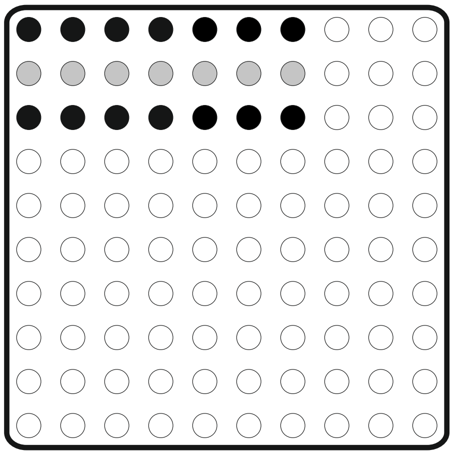
Five times nine lemons $= 5 \times 9 = \square$

Look at the plugs placed on the mathemat. Write the addition and multiplication.



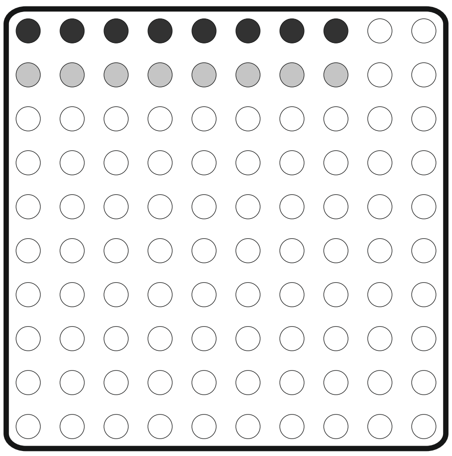
$$\begin{array}{r} \boxed{5} \\ + \boxed{5} \\ + \boxed{5} \\ + \boxed{5} \\ \hline \boxed{20} \end{array}$$

$\boxed{4} \times \boxed{5} = \square$



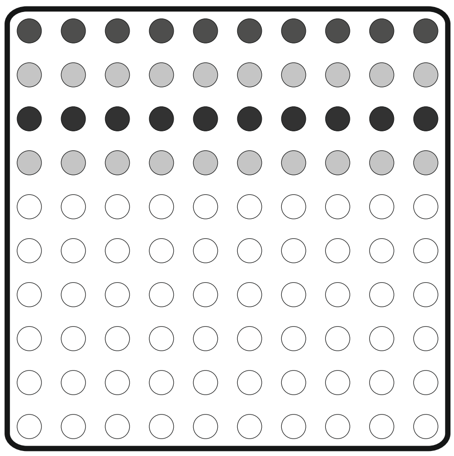
$$\begin{array}{r} \square \\ + \square \\ + \square \\ \hline \square \end{array}$$

$\square \times \square = \square$



$$\begin{array}{r} + \square \\ + \square \\ \hline \square \end{array}$$

$\square \times \square = \square$



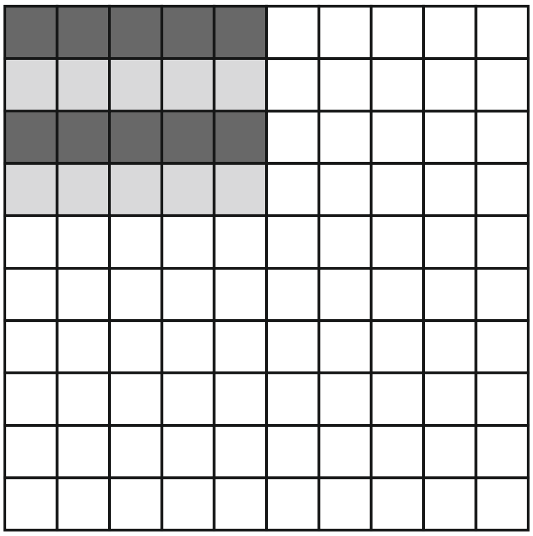
$$\begin{array}{r} \square \\ + \square \\ + \square \\ + \square \\ \hline \square \end{array}$$

$\square \times \square = \square$

Look at the addition, write the multiplication and the answer. Colour the squares.

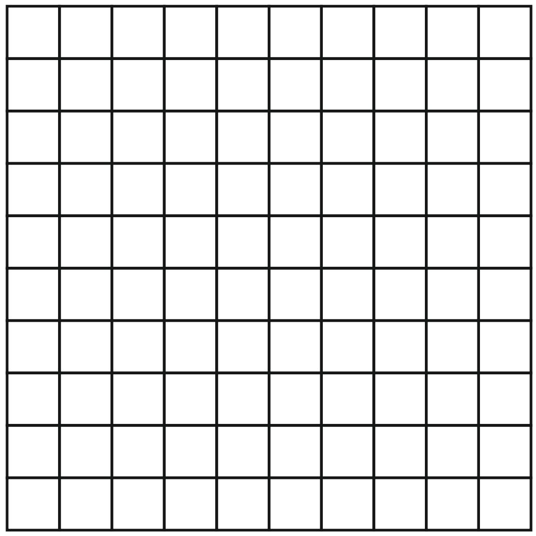
$5 + 5 + 5 + 5$

$= \boxed{4} \times \boxed{5} = \boxed{}$



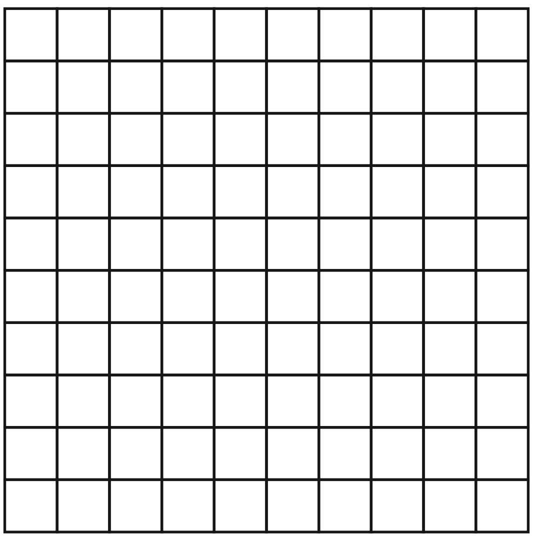
$3 + 3 + 3 + 3 + 3 + 3 + 3$

$= \boxed{} \times \boxed{} = \boxed{}$



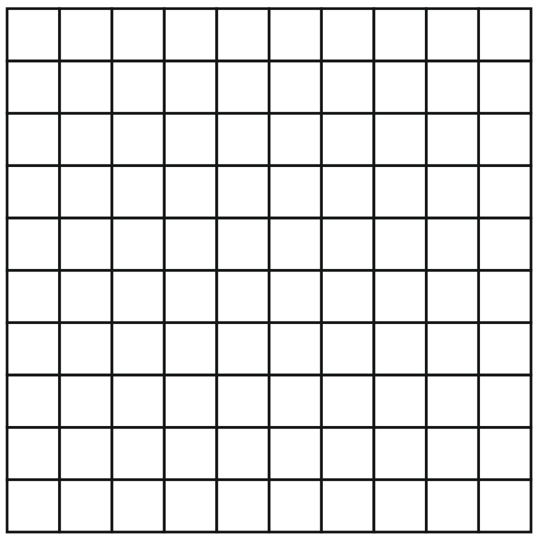
$0 + 0 + 0$

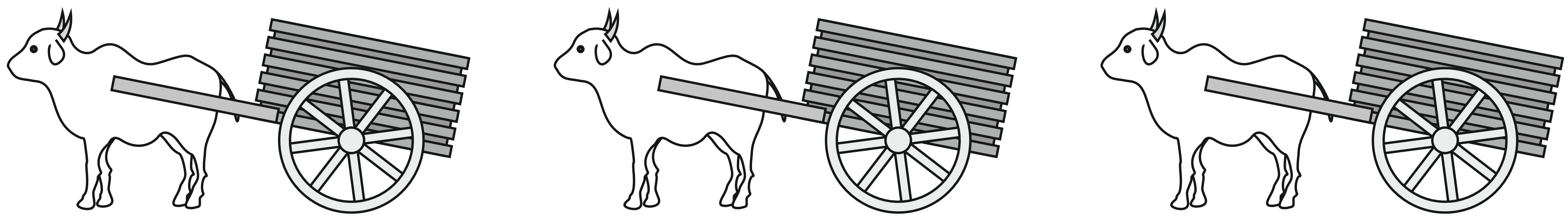
$= \boxed{} \times \boxed{} = \boxed{}$



$2 + 2 + 2 + 2 + 2$

$= \boxed{} \times \boxed{} = \boxed{}$

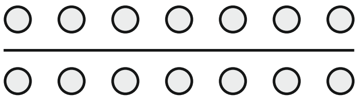




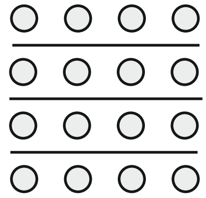
	Addition	Multiplication	Total
3 Bulls have how many legs?	4 + 4 + 4	3 X 4	12
How many wheels of 3 carts.			
How many horns 3 bulls have			
How many tails?			
How many eyes?			

Addition	Multiplication	Total
5 + 5 + 5 + 5		
4 + 4 + 4 + 4 + 4 + 4		
7 + 7		
10 + 10 + 10 + 10 + 10 + 10 + 10		
	3 X 4	
	6 X 5	
	7 X 10	

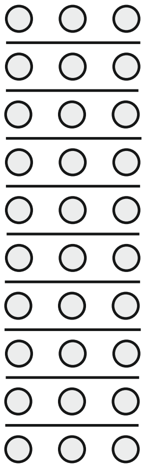
Join the pairs.



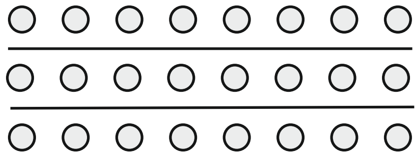
5×3



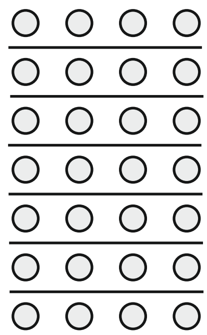
4×4



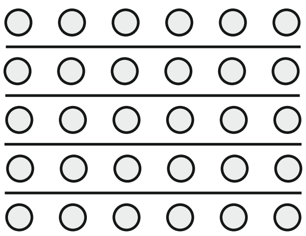
2×7



3×8

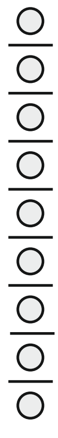


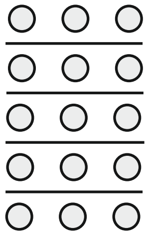
7×4



5×6

9×1





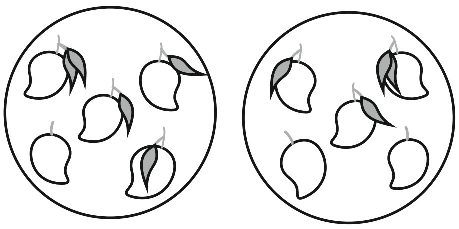
10×3

Join the pairs.

2 times 3

2 + 2 + 2

6 times 4



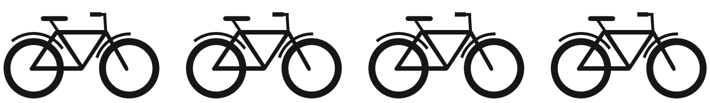
\+ \+ \+ \+

4 + 4 + 4 + 4 + 4

Seven multiplies five

4 times six

5 + 5 + 5 + 5



How many wheels in all?

6×4

5×5

2×5

2×3

4×5

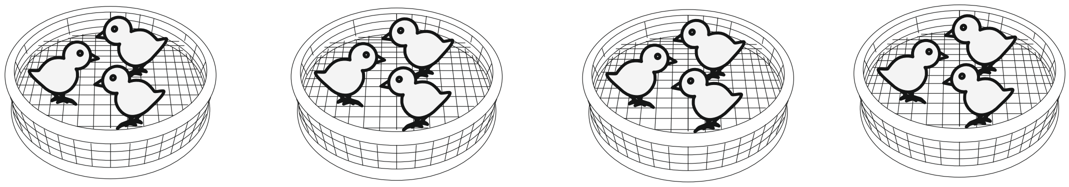
4×6

4×2

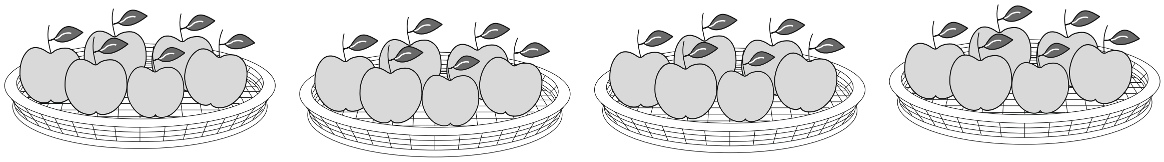
3×2

7×5

See the picture. Write the multiplication.



$\square \times \square = \square$



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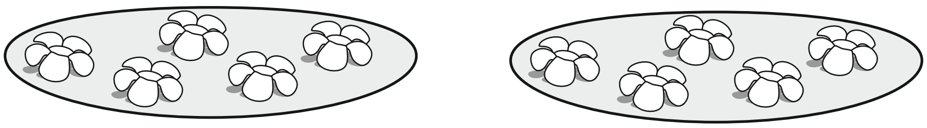
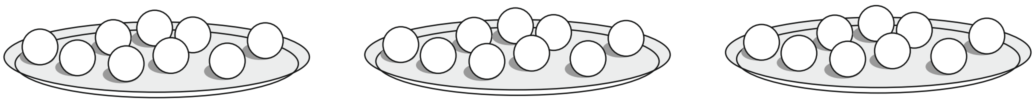
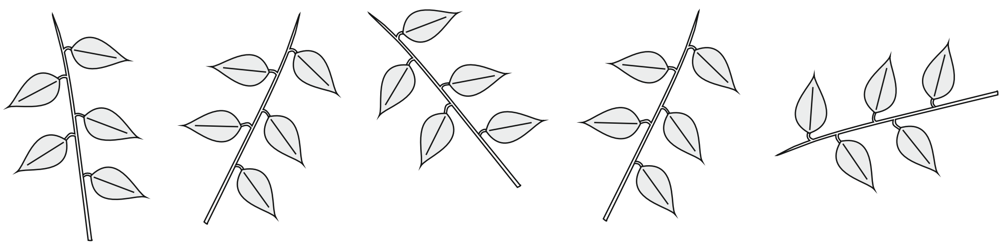


$\square \times \square = \square$



$\square \times \square = \square$

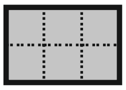


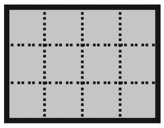
$\square \times \square = \square$

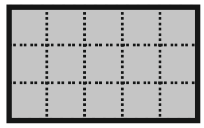
Show the multiplication by colouring the squares. Write tjhe answer.

$4 \times 3 =$ 12	$5 \times 3 =$	$7 \times 2 =$
$6 \times 5 =$	$6 \times 6 =$	$9 \times 0 =$
$5 \times 4 =$	$2 \times 8 =$	$9 \times 4 =$

Use 1 cm unit cubes. Make the rectangles shown on your slate.
Write the multiplications.







	T	U
		3
x		2
		6

	T	U
x		

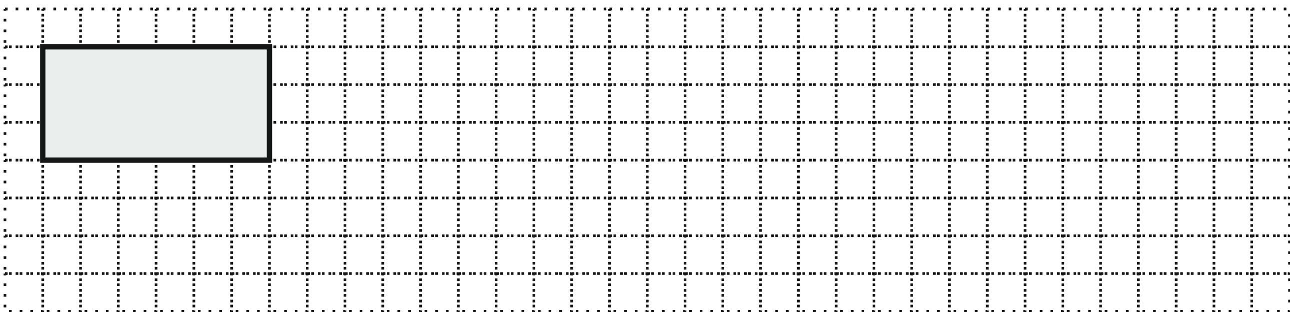
	T	U
x		

Look at the given multiplications. Draw the rectangle and write the answer.

	T	U
		6
x		3
	1	8

	T	U
		5
x		7

	T	U
		4
x		5



Use unit cubes. Make the rectangle for each multiplication. Write the answer.

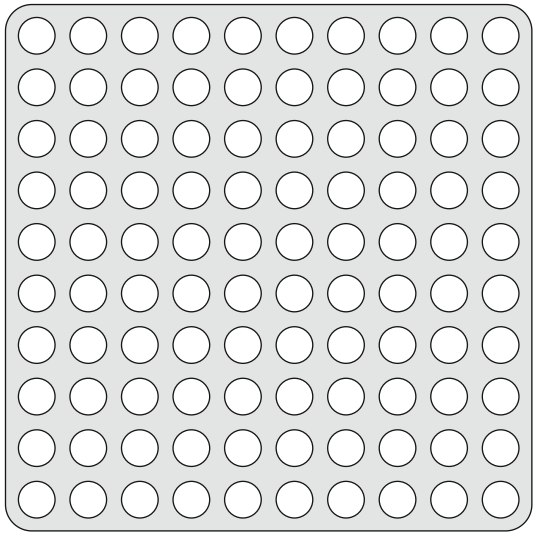
	T	U
		3
x		3

	T	U
		4
x		1

	T	U
		4
x		0

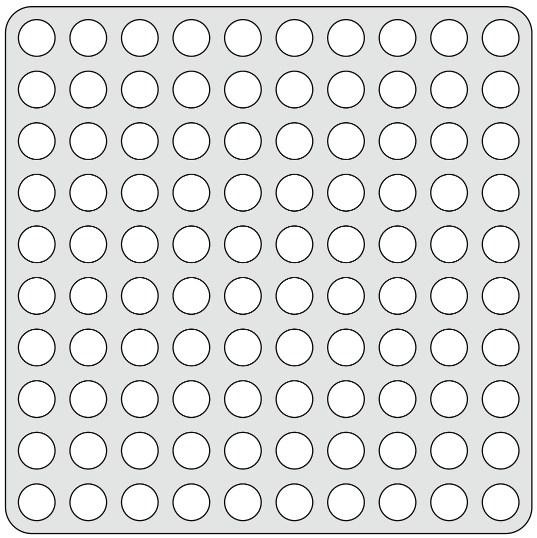
Draw the plugs on the mathemat to show the multiplication. Write two examples of the multiplication.

	T	U
		5
×		3



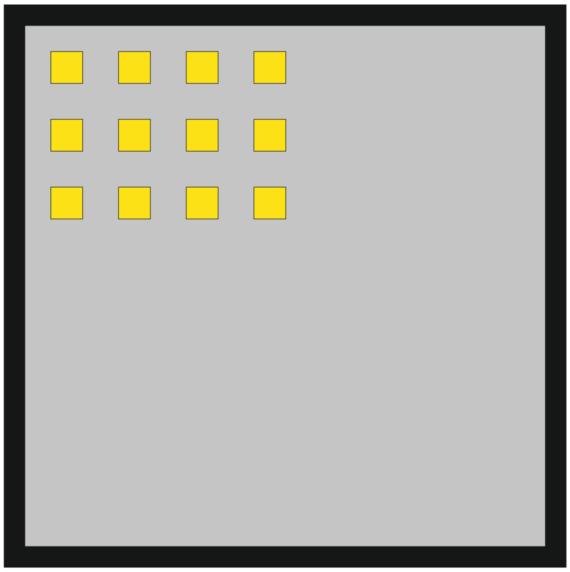
Three times five

	T	U
		7
×		8

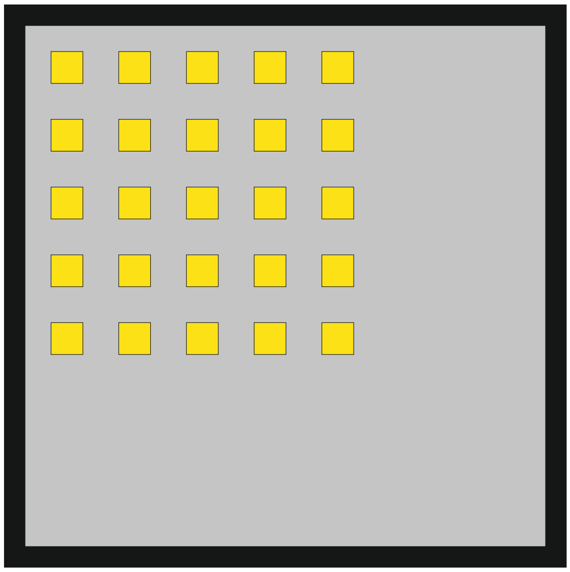


Eight times seven

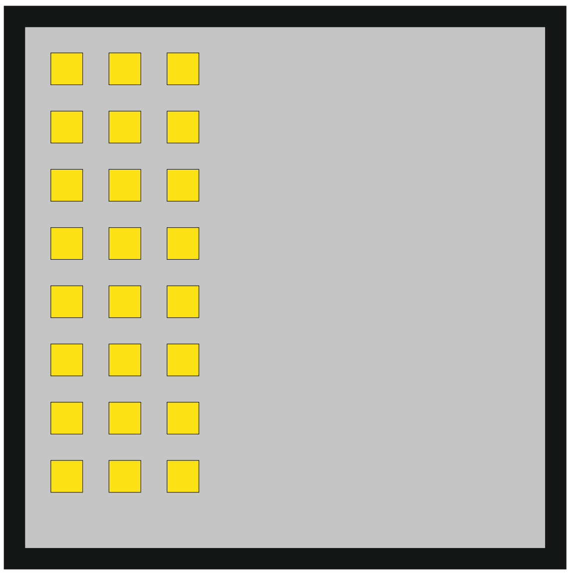
Look at the rectangle formed. Write the multiplication.



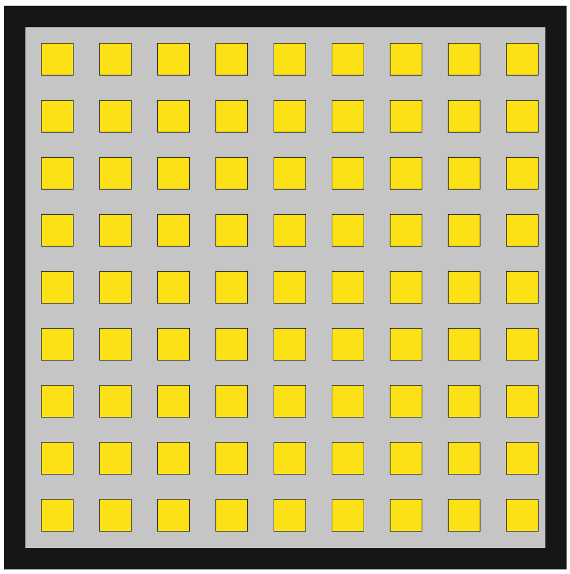
$\square \times \square = \square$



$\square \times \square = \square$



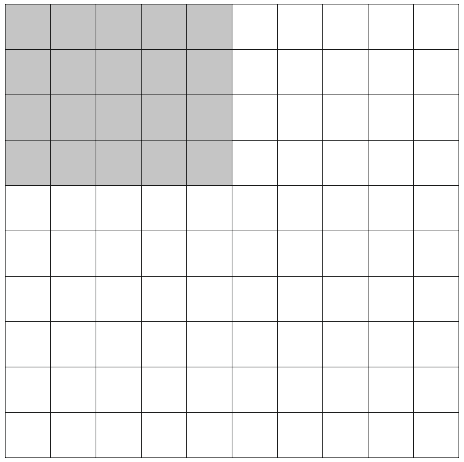
$\square \times \square = \square$



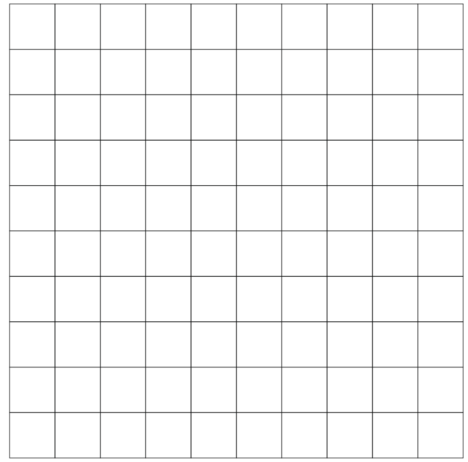
$\square \times \square = \square$

Colour the rectangle to show the multiplication. Write the answer.

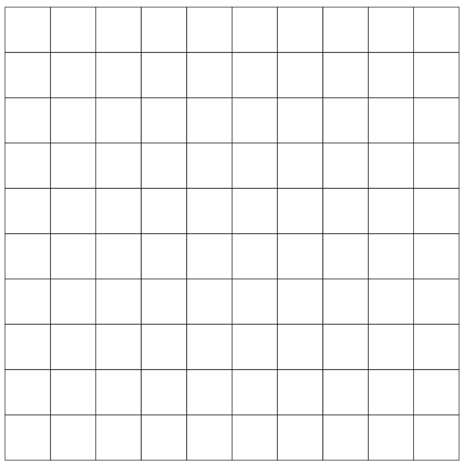
T	U
	5
×	4



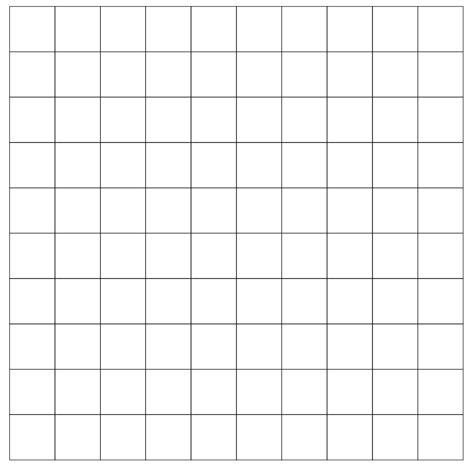
T	U
	2
×	8



T	U
	8
	8



T	U
	4
×	0



$5 \times 3 =$ Five times three $= 15$

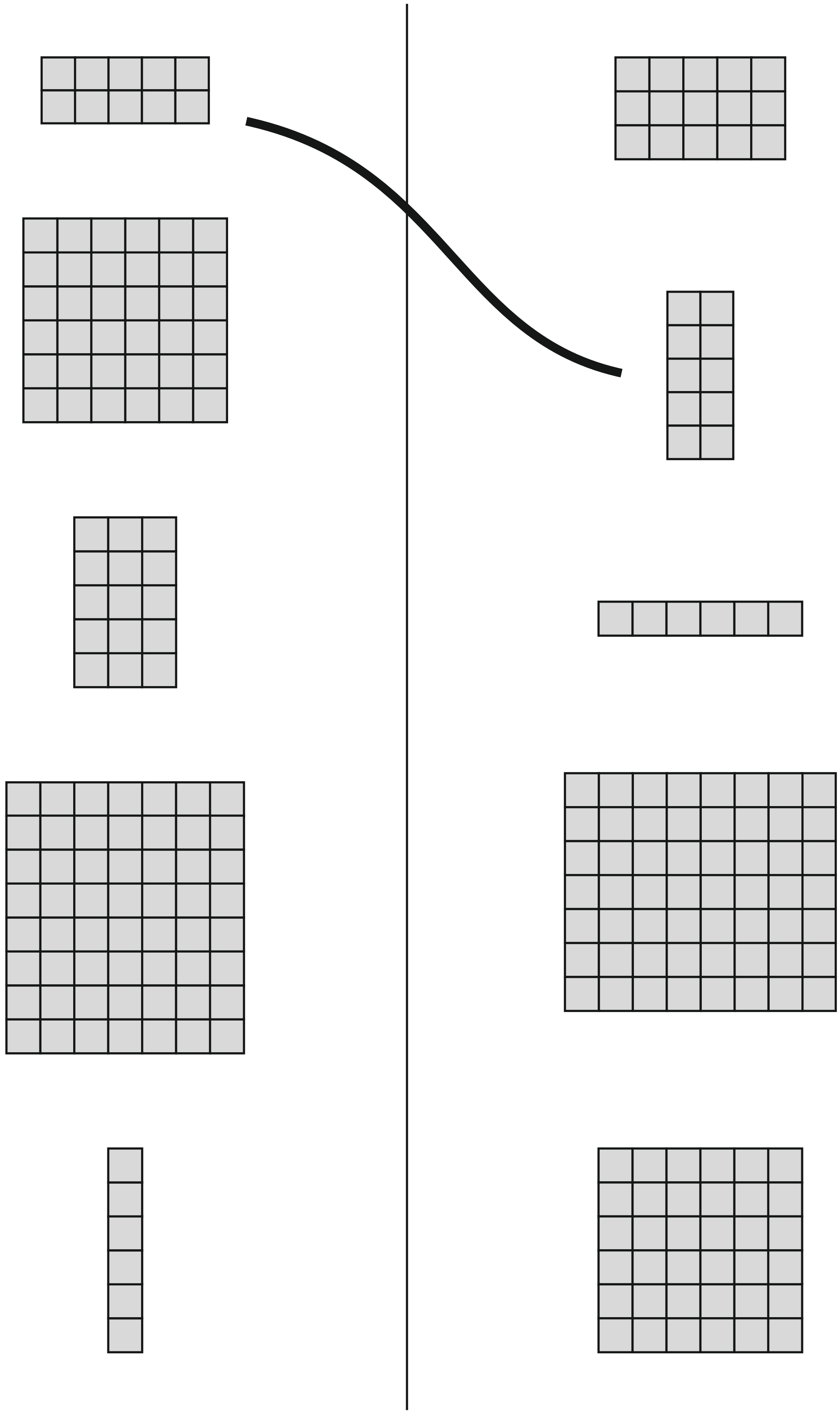
$3 \times 5 =$ Three times five $= 15$

3×5 and 5×3 are a corresponding pair of direct and reverse multiplication.

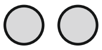
Match and Join such corresponding pairs below.

3 x 4	5 x 6
5 x 2	3 x 9
7 x 1	4 x 0
8 x 6	2 x 5
0 x 4	4 x 3
9 x 3	0 x 1
6 x 5	6 x 8
1 x 0	1 x 7

Join the direct and reverse corresponding pairs.

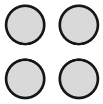


Tables of two



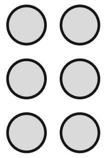
1 times two

= ☐



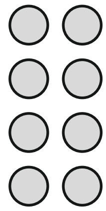
2 times two

= ☐



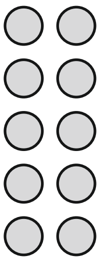
3 times two

= ☐



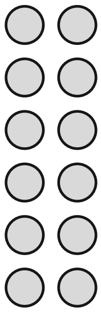
4 times two

= ☐



5 times two

= ☐



6 times two

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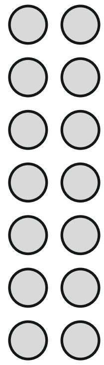

7 times two

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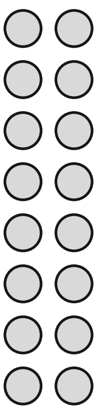

8 times two

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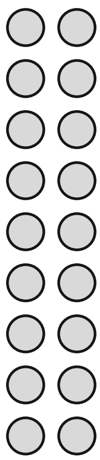
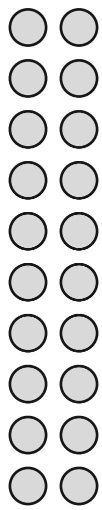


9 times two

= ☐



10 times two

= ☐

Tables of ten

1 times ten

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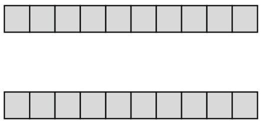

2 times ten

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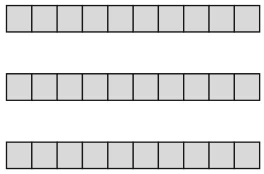
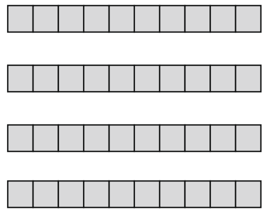


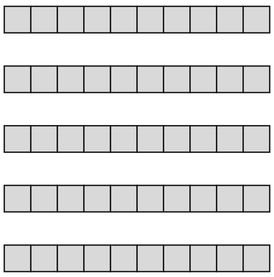
3 times ten

=



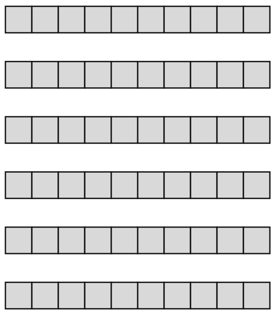
4 times ten

=



5 times ten

=



6 times ten

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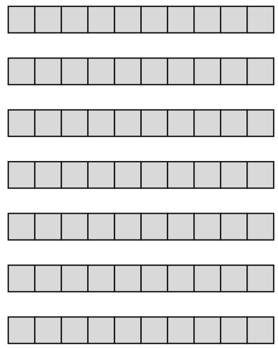

7 times ten

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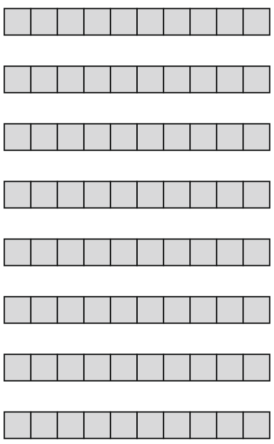

8 times ten

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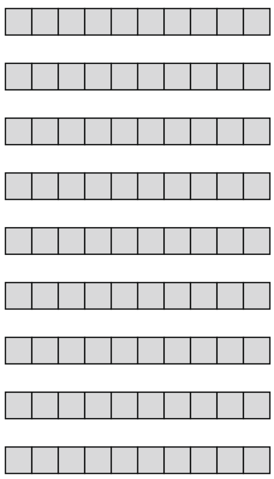

9 times ten

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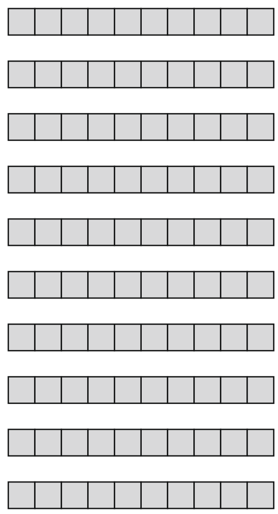

10 times ten

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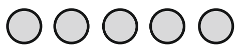
Tables of five



1 times five

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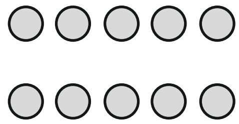
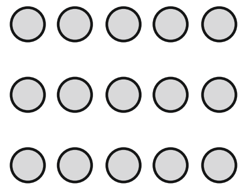


2 times five

= ☐



3 times five

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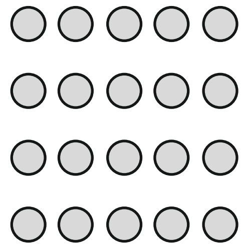

4 times five

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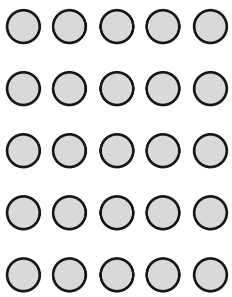

5 times five

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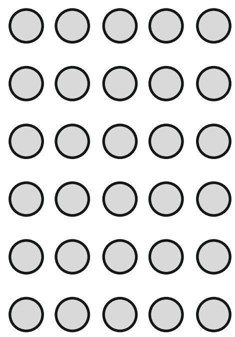

6 times five

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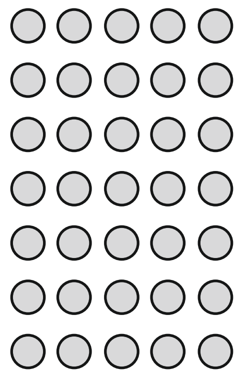

7 times five

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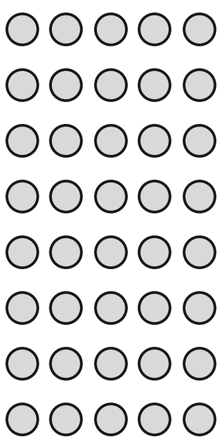

8 times five

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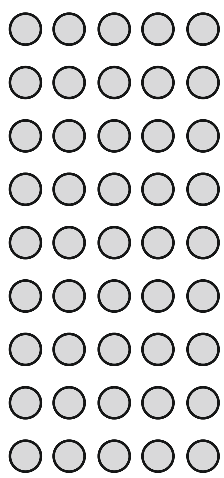

9 times five

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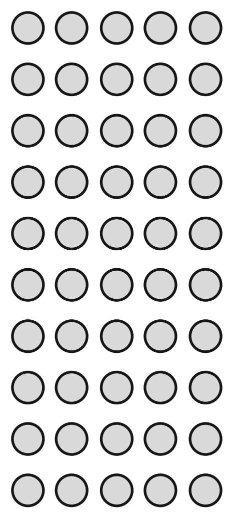

10 times five

= ☐

Tables of three

1 times three

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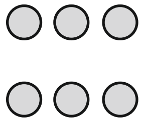

2 times three

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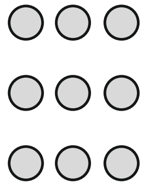

3 times three

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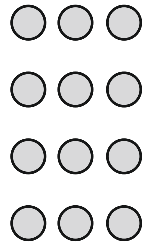

4 times three

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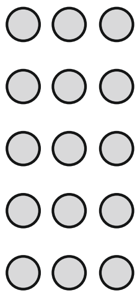

5 times three

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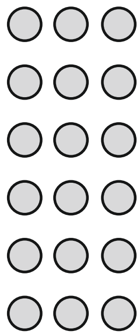
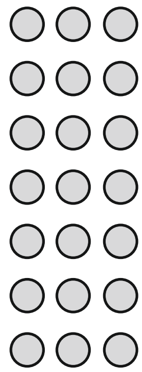


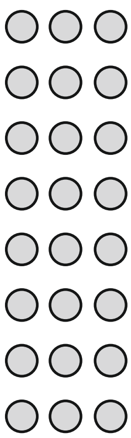
6 times three

=



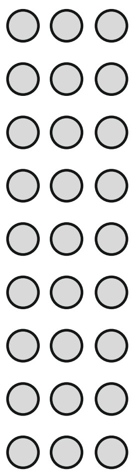
7 times three

=



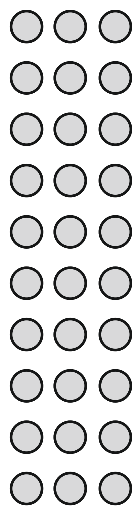
8 times three

=



9 times three

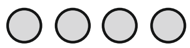
=



10 times three

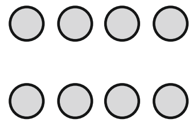
=

Tables of four



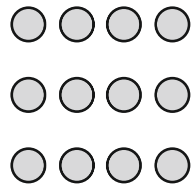
1 times four

= ☐



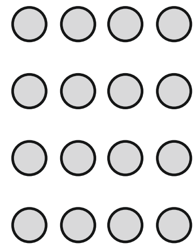
2 times four

= ☐



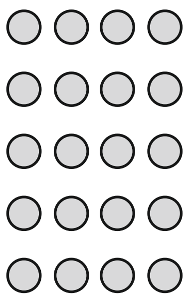
3 times four

= ☐



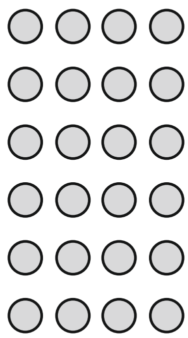
4 times four

= ☐



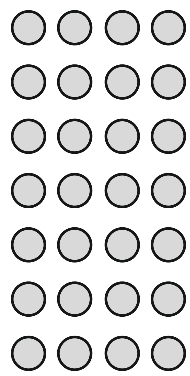
5 times four

= ☐



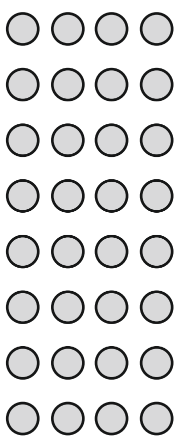
6 times four

= ☐



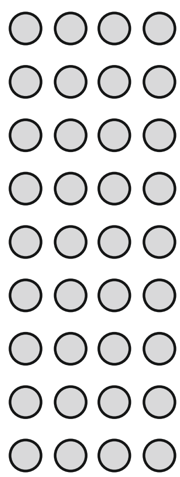
7 times four

= ☐



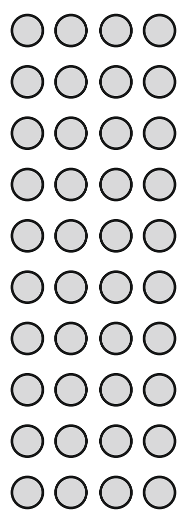
8 times four

= ☐



9 times four

= ☐



10 times four

= ☐

1) One balloon costs Rs.2.
How many rupees do 6 balloons cost?

	Tens	Units
		2
x		6
	1	2

2) 5 Children in one group.
How many children in 7 such groups?

Tens	Units

3) Hema brought 6 books each costing 4 rupees.
How many rupees did she spend?

Tens	Units

4) Paru planted 10 rows of 6 shrubs each.
How many shrubs did she plant in all?

Tens	Units

5) 10 mangoes in one box.
How many mangoes in 8 such boxes?

Tens	Units

Do the multiplication. Write an example in words.

	Tens	Units
		4
x		3
	1	2

	Tens	Units
		9
x		2

	Tens	Units
		8
x		5

	Tens	Units
		3
x		6

Write the tables for one till ten.

1	2	3	4	5	6	7	8	9	10
2	4	6							
3	6								
4	8								
5	10								
6	12								
7	14								
8	16								
9	18								
10	20								

Fill in the blank boxes in the following tables.

6		18			36				60

8			32				64		

	14								70

Colour the tables of 2 in red.

Colour the tables of 3 in blue.

Colour the tables of 5 in yellow.

Colour the tables of 10 in green.

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Use your multiplication table and write the answer.

	T	U
		2
x		4

	T	U
		3
x		2

	T	U
		3
x		3

	T	U
		7
x		5

	T	U
		9
x		1

	T	U
		8
x		0

	T	U
		6
x		6

	T	U
		8
x		7

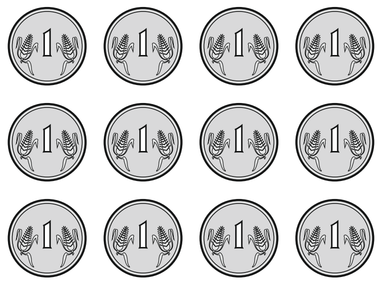
	T	U
		9
x		0

	T	U
		4
×		2

2 times 4

	T	U
		4
×		3

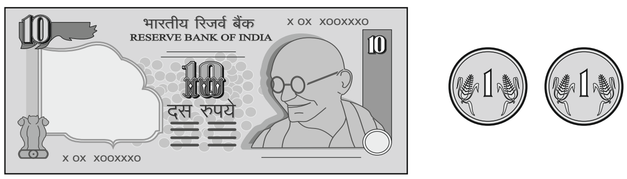
3 times 4



12 one rupee coins

Exchange 10 coins for one 10 rupee note.

We get 12 rupees in this form.



We write 1 in house of tens and 2 in the units house.

Use currency notes and coins and do the multiplications.

	T	U
		5
×		4

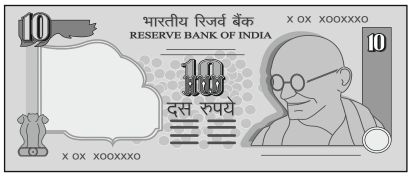
	T	U
		8
×		8

	T	U
×		

	T	U
		1
×		9

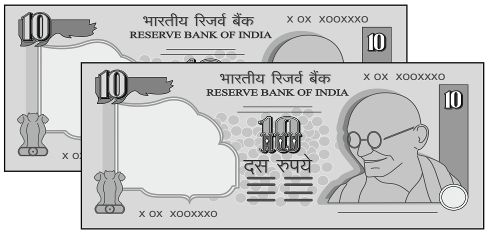
Tables of Ten

10
x 1



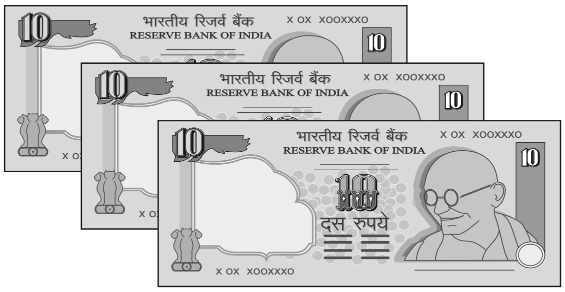
= ☐

10
x 2



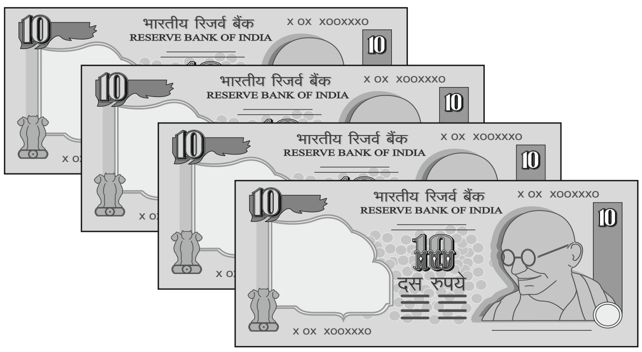
= ☐

10
x 3



= ☐

10
x 4



= ☐

10 x 5	10 x 6	10 x 7	10 x 8	10 x 9	10 x 10	10 x 0

Use currency notes and do the following multiplications.

	T	U
	1	0
×		4

10 rupees taken 4 times. What will you get. Write the answer.

	T	U
	4	0
×		2

40 rupees taken 2 times.What will you get. Write the answer.

	T	U
	3	0
×		3

30 rupees taken 3 times. What will you get.Write the answer.

	T	U
	2	0
×		4

20 rupees taken 4 times.What will you get. Write the answer.

Study and Observe the above examples, What rule do you observe?

Use that rule to write the answers below.

1) 10 x 6 = ☐

2) 20 x 3 = ☐

3) 30 x 2 = ☐

4) 10 x 9 = ☐

5) 70 x 1 = ☐

6) 80 x 0 = ☐

Use notes and coins to do the following multiplication

Take 20, five times, How much will you get? Write the answer. How will you write it?

	H	T	U
		2	0
×			5
	1	0	0

Zero units taken 5 times. We write zero in the units house. 2 tens taken 5 times means 10 tens. 10 tens = 1 hundred. We make a house of hundreds on the left of the house of ten's. We write 1 in the house of hundreds, and zero in the house of tens.

	H	T	U
		3	0
×			4

	H	T	U
		4	0
×			5

	H	T	U
		8	0
×			3

	H	T	U
		6	0
×			4

	H	T	U
		4	0
×			6

	H	T	U
		7	0
×			5

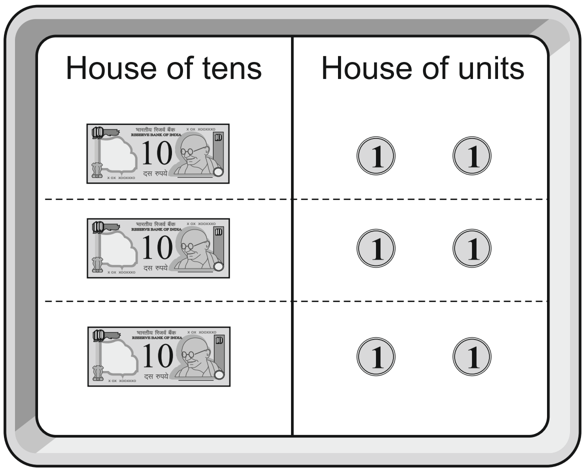
	H	T	U
		5	0
×			7

	H	T	U
		5	0
×			2

	H	T	U
		9	0
×			3

3 x 12

We want to do 3 x 12. Take 3 times 12 rupees. Keep 12 rupees three times in the appropriate houses.



We get 3 notes of 10 in the house of ten's. We get 6 units in the unit's house.

	10	2
3 times	3 x 10	3 x 2
	30	**6**

3 times 10 and 3 times 2

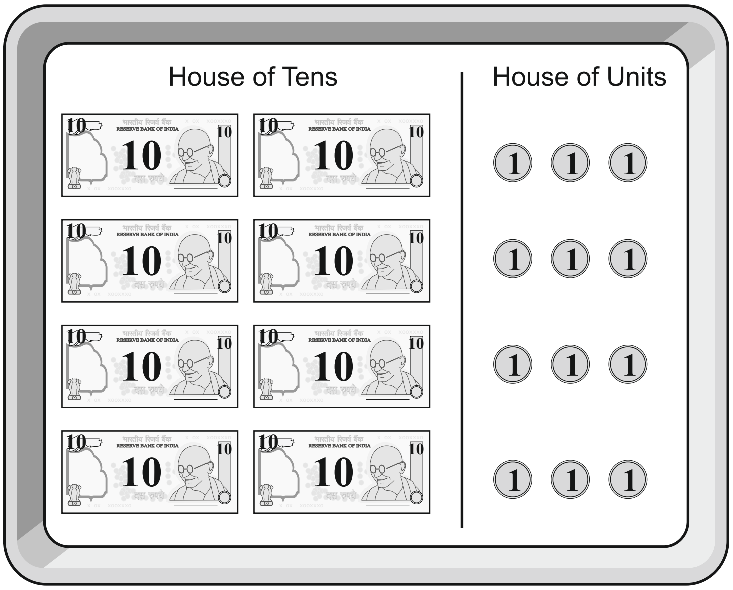
30 + 6 = 36

	T	U
	1	2
×		3

First we consider the units.
Two units taken 3 times is 6
(Three twos are 6).
We write 6 in the units' house.
One ten taken 3 times gives 3 tens.
We write 3 in the tens'house.

4 x 23

We take 23 rupees 4 times. 4 times 20 rupees and 4 times 3 rupees. Use notes and coins to keep 23 rupees four times in the appropriate houses.



4 times 20 rupees in the house of tens, gives us 80 rupees. We get 12 coins of one rupee in the house of units.

	20	3
4 times	4 x 20 = 80	4 x 3 = 12

4 times 20 and 4 times 3

80 +12 = 92

	T	U
	2	3
×		4
	1	
	9	2

2 Tens and 3 units taken 4 times :
First let us count the units. We get 12 units. Exchange the 10 units for a Ten rupee note. We get 1 Ten and 2 units. We write 2 units in the house of units and we write carry over 1 in the house of tens. 2 tens taken 4 times gives 8 tens, plus the 1 ten which was carried, making 9 tens. We write 9 in the house of tens and 2 in the house of units.

Make and place notes and coins in the correct houses and do the following multiplications.

	T	U
	2	1
x		0

	T	U
	1	1
x		9

	T	U
	9	8
x		1

	T	U
	1	2
×		5

	T	U
	1	4
×		3

	T	U
	2	3
×		4

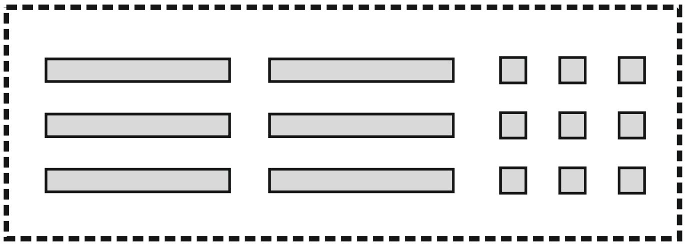
	T	U
	2	5
×		2

	H	T	U
		2	2
×			5

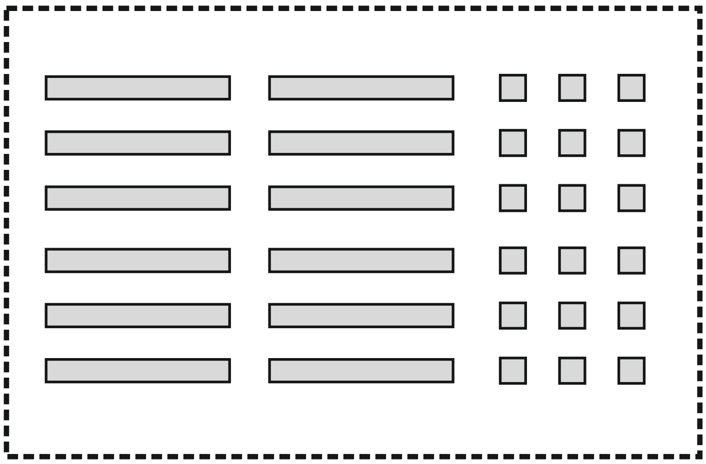
	H	T	U
		4	8
×			2

	H	T	U
		6	9
×			9

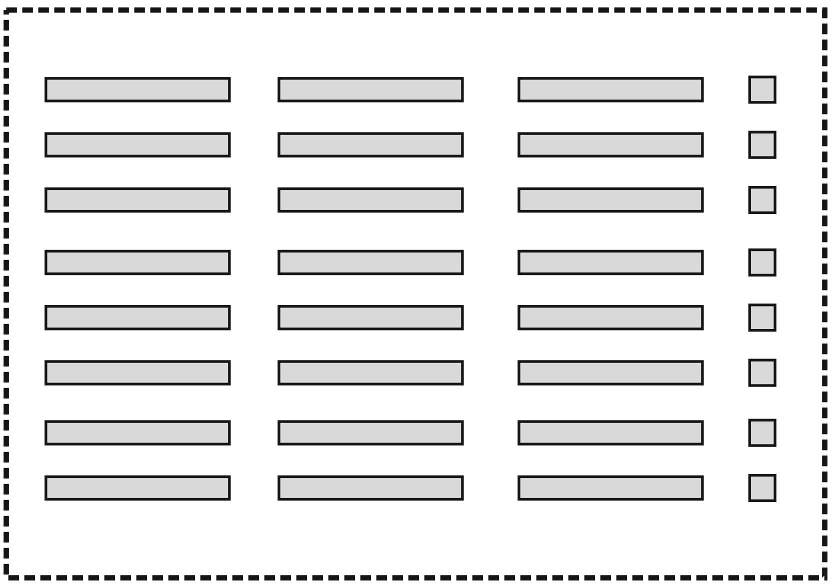
Look at the multiplication shown with the rods and cubes.
Write the multiplication in numerals.



	T	U
×		

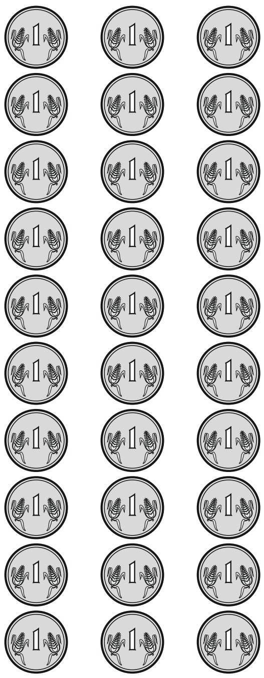


	H	T	U
×			



	H	T	U
×			

What happens if we take 3 ten times? 10 times 3 = 10 x 3
Do it with coins and notes.



☐ coins of 1 rupee

We can exchange these for ☐ notes of 10 rupees

Therefore 10 x 3 = 10 times 3 = 30

	T	U
		3
×	1	0
	3	0

Do the following multiplication using notes and coins.

4 x 10 = ☐ 2 x 10 = ☐

5 x 10 = ☐ 8 x 10 = ☐

7 x 10 = ☐ 1 x 10 = ☐

0 x 10 = ☐ 9 x 10 = ☐

What rule do we see when we multiply by 10?

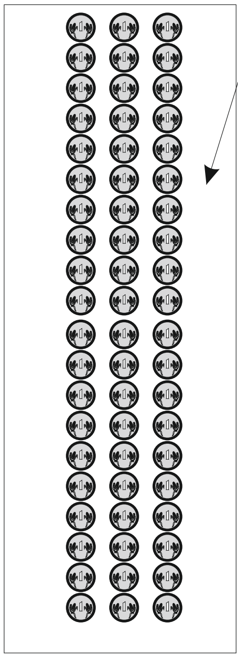
When we Multiply a number by 10 we get the same answer as putting a zero after the number.

Put a zero after each number and study the result.

Number	Number which results putting a zero	Writing in the proper houses	The number after putting a zero shown in houses
12	120	T U / 1 2	H T U / 1 2 0
45		T U	H T U
30		T U	H T U
34		T U	H T U
88		T U	H T U

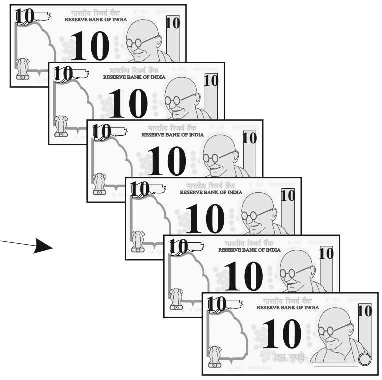
When we put a zero at the end of a 2 digit number, each digit shifts to the house on its left. The 10's digit shifts to the house of hundreds. The units digit shift to the house of 10's.The zero is in the units house.

What 20 times 3?
Lets us do it and see what happens.



We can see that we get 60.

We get 60 coins which can be exchanged into 6 tens and 0 units like this.



	T	U
		3
×	2	0
	6	0

We can write it like this : 20 x 3 = 20 times 3 = 60

We see a simple rule.

We take 3 units, 2 ten times which mean 6 tens.
We write 6 in the house of tens..

	T	U
		3
×	3	0

	T	U
		2
×	4	0

	H	T	U
			5
×		2	0

	H	T	U
			4
×		6	0

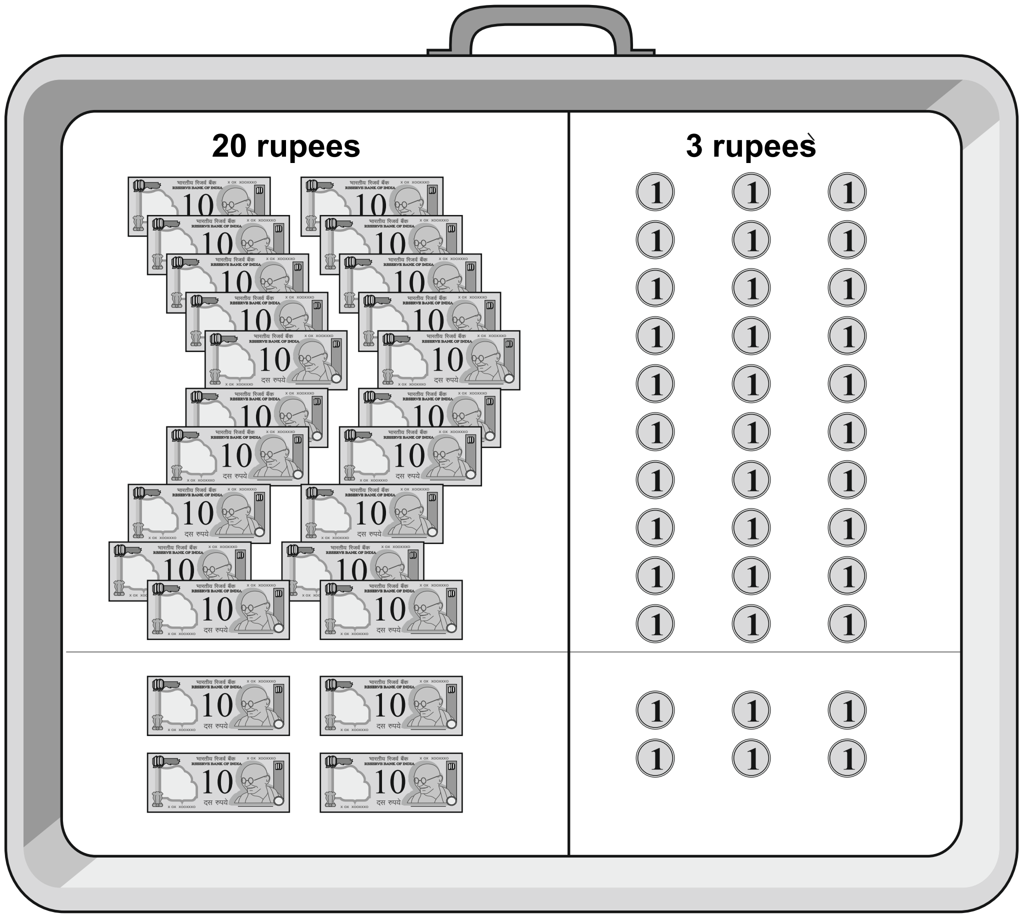
Simple rule:

Multiplying by 30 is the same as multiplying by 3 and then putting zero. Multiplying by 40 is the same as multiplying by 4 and then putting a 0.

Now lets see 12 times 23 12 x 23
12 times 23 means 12 times 20 plus 12 times 3.
We do this by using notes and coins in the proper houses.

10 times

2 times



We get a Total of: 200 + 40 + 30 + 6 = 276
We can write it like this:

	20	3	
10 times	10 x 20 **(200)**	10 × 3 **(30)**	10 times 20 and 10 times 3
2 times	2 x 20 **(40)**	2 x 3 **(6)**	2 times 20 and 2 times 3

Total: 200 + 30 + 40 + 6 = 276