

UNIVERSAL ACTIVE MATH

End Year Random Sample Assessment

CLASS 6 to 8

- This is not an evaluation of individual students.
- It is also not a comprehensive assessment.
- It is a diagnostic assessment of some basic concepts.
- This is for an assessment of what we have broadly achieved as a whole system.



How to conduct the assessment :

- o The assessment problems are of two types- practical-oral and written.
- o The assessment resource person team is three party- including teachers, officers and external resource persons.
- o There will be two or three members in each team.
- o Schools will be selected as per random sampling methods.
- o Within each class children will be selected as a random sample.
- o Each team visits one school per day. One member assesses 5 children each of class 1 and 2. The other member assesses 5 children each of class 3 and 4, and so on. To assess 5 children in both ways takes maximum 2 hours.
- o Some materials like notes, coins, shapes, compass, protractor, etc. will be part of your assessment kit and will be prepared in advance.
- o Question cards for each class will be prepared.
- o The practical-oral test is administered to 5 children at a time sitting in a half circle.
- o Each child is asked questions 1 to 5 (or as specified).
- o Thereafter give the children their printed written papers.
- o After the assessment, the papers are scrutinized and data obtained is collated.

Distribution of Marks

	Practical+Oral	Written	Total
Class 6	5	45	50
Class 7	5	45	50
Class 8	5	55	60

School : _____

Officer / Teacher / NLF - MRP

Class 6

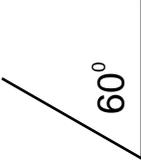
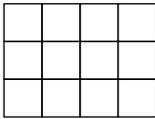
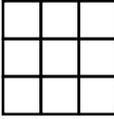
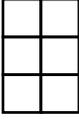
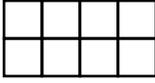
Practical Test : Note the marks in each chart :

	A	B	C	D	E	NOTE
1. Keep some rupees before each child (4 digit). Children write the number.						
2. Give five digit number card to each child. Children read the number.						
3. Give matchsticks/straws to each child. "Make the biggest polygon".						
4. Measure the angle on your card using a protractor.						
5. Find the perimeter of rectangle drawn on your card.						

If the child answers correctly mark ✓. If the child answers correctly with a little help mark ✕. If the child cannot answer, mark X.

Class 6

Practical Test : Note the marks in each chart

	A	B	C	D	E
1. Keep some rupees before each child. Children write the number.	3245	3045	3205	3240	3005
2. Children read the 5 digit number on their cards.	12345	15000	16400	20300	10900
3. Give some matchsticks/straws to each child and ask her to make the biggest polygon.	3	4	5	4	3
4. Measure the angle on your card using a protractor.					
5. Find the perimeter of rectangle drawn on your card.					

Name : _____

Class 6
Written Test

Q. 1) Write the numbers in sequence. (2)

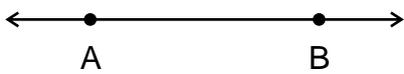
7298

7299

Q. 2) Find the factors of 18. (1)

Q. 3) Write any two multiples of 5. (1)

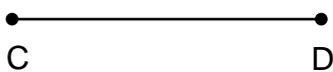
Q. 4) Observe the figures and match the pairs. (3)



Line segment

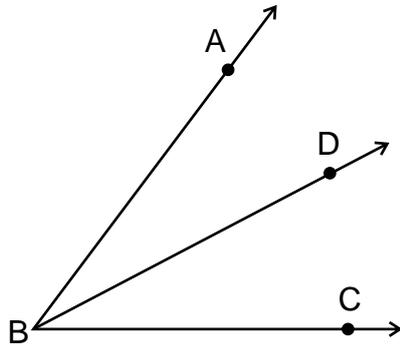


Line

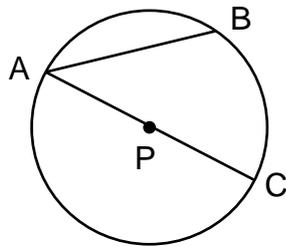


Ray

Q. 5) How many angles are formed in the given figure ? Write their names. (2)



Q. 6) Observe the figure and answer the questions. (3)

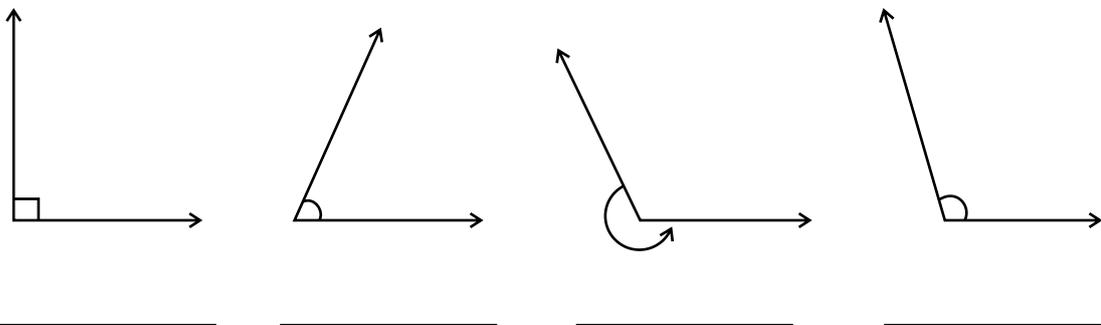


a) Name the centre of the circle : _____

b) Name a radius : _____

c) Name a chord : _____

Q. 7) Classify given angles into acute, right obtuse, and reflex angle. (2)

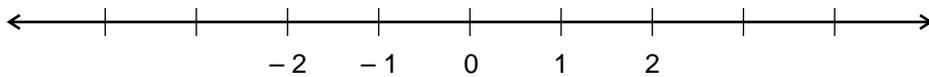


Q. 8) Match the pairs : (3)

Measures of triangles	Type of triangle
3 sides of equal length	Isosceles triangle
2 sides of equal length	Scalene triangle
All sides of different lengths	Equilateral triangle
3 acute angles	Obtuse angle triangle
1 right angle	Acute angled triangle
1 obtuse angle	Right angled triangle

Q. 9) Mark the following numbers on the number line. (2)

3, 4, -3, -4



Q. 10) Which number is bigger, -2 or 0 ? (1)

Q. 11) Which number is smaller, -3 or +2 ? (1)

Q. 12) Solve (1)

$$(+2) + (+3) =$$

Q. 13) Solve (1)

$$(+3) + (-2) =$$

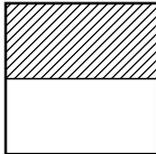
Q. 14) Solve

(1)

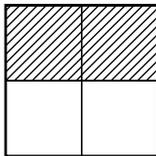
$$(-2) + (-3) =$$

Q. 15) Match the coloured portion with fraction.

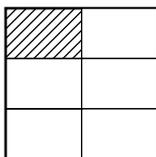
(2)



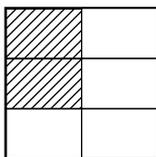
$$\frac{1}{6}$$



$$\frac{1}{2}$$



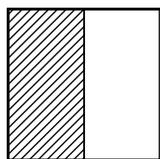
$$\frac{2}{6}$$



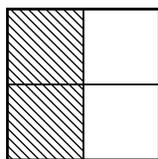
$$\frac{2}{4}$$

Q. 16) Observe the pictures and write equivalent fractions of $\frac{1}{2}$

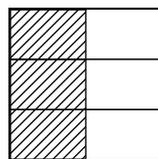
(2)



=



=



$$\frac{1}{2}$$

=

$$\frac{\square}{4}$$

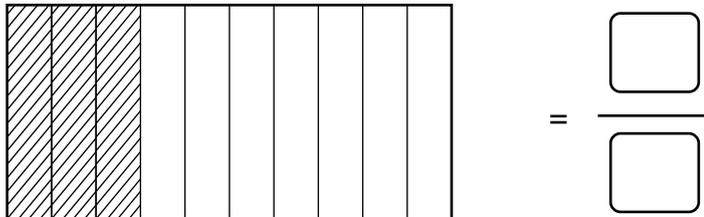
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$$\frac{3}{\square}$$

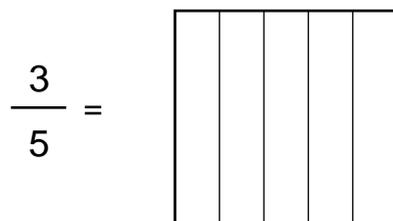
Q. 17) $\frac{1}{4} + \frac{2}{4} =$ (1)

Q. 18) $\frac{3}{4} - \frac{1}{4} =$ (1)

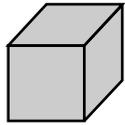
Q. 19) Write the coloured portion in the form of fraction. (1)



Q. 20) Colour the given fraction. (1)



Q. 21) Decimal kit has the following pieces :



This is a unit cube.



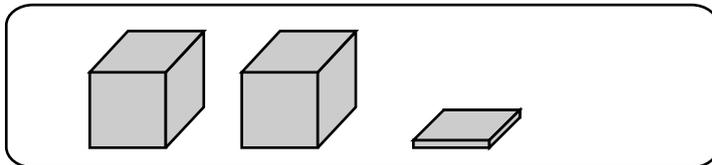
This is $\frac{1}{10}$



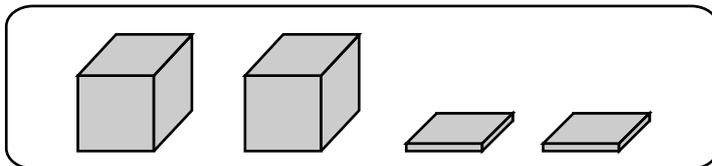
This is $\frac{1}{100}$

Based on this, match the pictures with numbers.

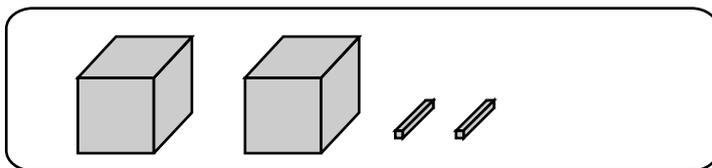
(3)



2.2



2.02



2.1

Q. 22) The cost of 6 cans of juice is Rs. 210/-. Find the price of one can ?

(2)

Q. 23) Write using x . (2)

i) 5 add to a number =

ii) 2 subtracted from a number =

Q. 24) Find the value of given expression. (2)

if $x = 2$

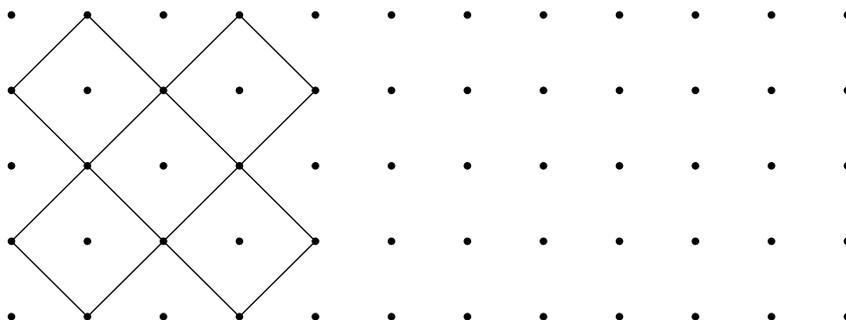
i) $x + 4 =$

ii) $3x =$

Q. 25) Draw perpendicular bisector of segment AB using a compass. (2)



Q. 26) Join the dots and complete the pattern. (2)



School : _____

Officer / Teacher / NLF - MRP

Class 7

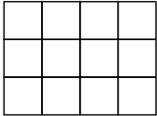
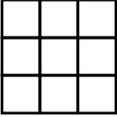
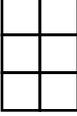
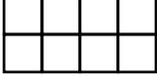
Practical Test : Note the marks in each chart :

	A	B	C	D	E	NOTE
1. Keep some rupees before each child (4 digit). Children write the number.						
2. Give six digit number card to each child. Children read the number.						
3. Show the first bar graph on page 68 of the class 7 textbook and ask one question to each child.						
4. Draw an angle of the given measure using a protractor.						
5. Find the area of given rectangle.						

If the child answers correctly mark ✓. If the child answers correctly with a little help mark ✕. If the child cannot answer, mark X.

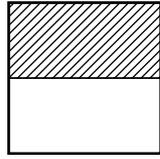
Class 7

Practical Test : Note the marks in each chart

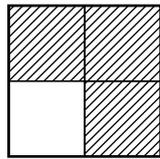
	A	B	C	D	E
1. Keep some rupees before each child. Children write the number.	3245	3045	3205	3240	3005
2. Children read the 6 digit number on their cards.	4,00,035	4,00,500	2,42,000	2,00,000	3,54,632
3. Show the first bar graph on page 68 of the class 7 textbook and ask one question to each child.	How many children like red colour?	Which colour is favourite of 20 children?	How many children like blue colour?	How many children like orange colour?	Which is the most favourite colour?
4. Draw an angle of the given measure using a protractor.	30°	120	90°	150	60°
5. Find the area of given rectangle.					

Q. 5) Match the picture with fractions.

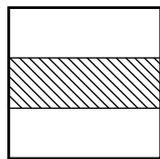
(2)



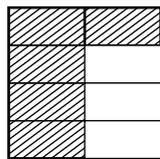
$$\frac{5}{8}$$



$$\frac{1}{2}$$



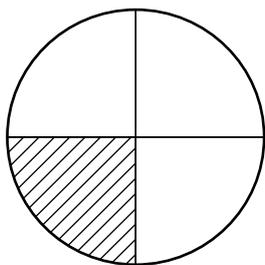
$$\frac{3}{4}$$



$$\frac{1}{3}$$

Q. 6) Write the coloured fraction.

(1)

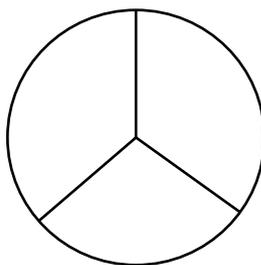


$$= \frac{\boxed{}}{\boxed{}}$$

Q. 7) Colour the given fraction.

(1)

$$\frac{2}{3} =$$



Q. 8) $\frac{1}{2} = \frac{\square}{4}$ (1)

Q. 9) $\frac{4}{8} = \frac{2}{\square}$ (1)

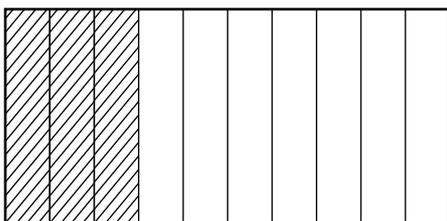
Q. 10) $\frac{1}{3} + \frac{2}{3} =$ (1)

Q. 11) $\frac{1}{4} \times 3 =$ (1)

Q. 12) $\frac{1}{2} - \frac{1}{4} =$ (1)

Q. 13) $\frac{3}{12} \times \frac{4}{6} =$ (1)

Q. 14) Write the coloured portion in the form of fraction and decimal. (2)



$= \frac{\square}{10} = \square$

Q. 15) Write in the decimal form. (1)

$$\frac{15}{100} = \boxed{}$$

Q. 16) Write in fraction form (Numerator and denominator) (1)

$$0.5 = \frac{\boxed{}}{\boxed{}}$$

Q. 17) Observe the expanded form. (2)

$$2.34 = 2 \times 1 + 3 \times \frac{1}{10} + 4 \times \frac{1}{100}$$

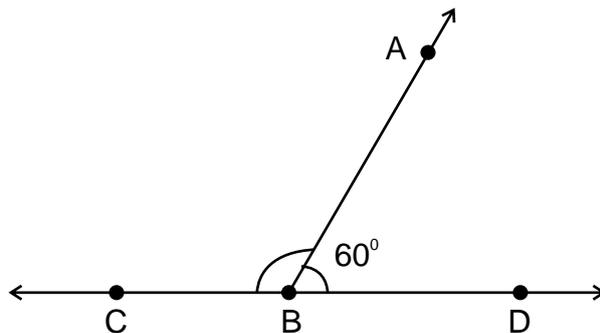
Now write the expanded form of 12.35

$$12.35 = \boxed{\phantom{2 \times 10 + 3 \times \frac{1}{10} + 5 \times \frac{1}{100}}}$$

Q. 18) $1.5 \times 10 = \boxed{}$ (1)

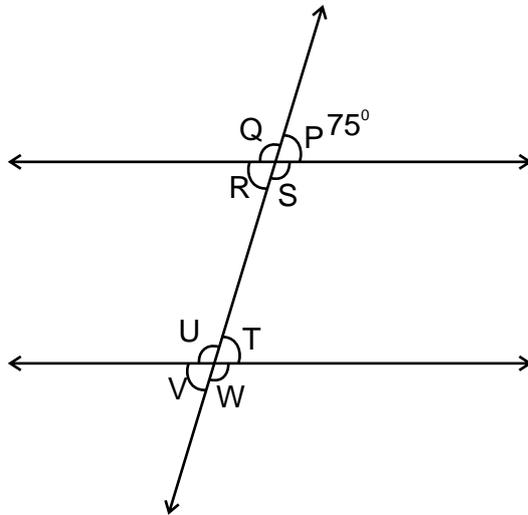
Q. 19) $\frac{24}{10} = \boxed{}$ (1)

Q. 20) What is the measure of angle ABC ? (2)



Q. 21)

(3)



There are two parallel lines. One line intersects them.

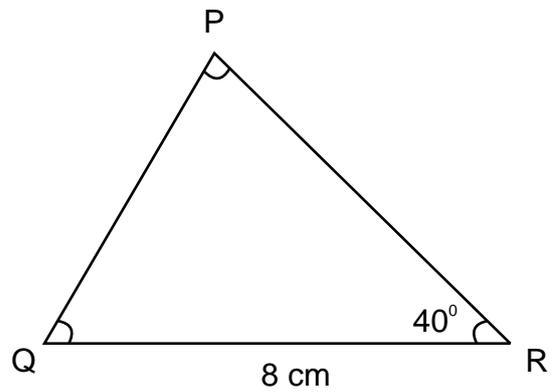
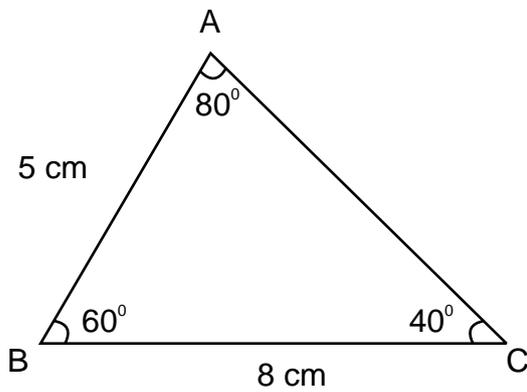
$\angle P = 30^\circ$

a) Which angle is equal to angle U ? _____

b) Which angle is equal to angle T ? _____

c) $\angle Q = \boxed{}^\circ$

Q. 22) Triangle ABC and triangle PQR are congruent to each other.



$\angle Q = \boxed{}^\circ$

(1)

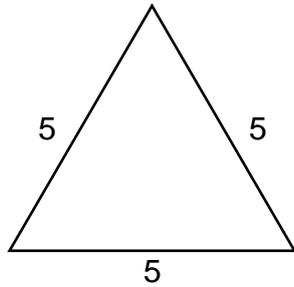
Side PQ = _____ cm.

(1)

Q. 23) I got 4 marks out of 8 in the first test. In the second test, I got 6 out of 10. (1)
 Have I improved ? _____.

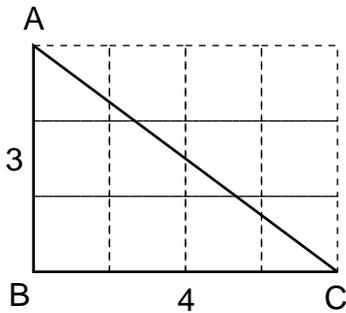
Q. 24) While making tea, I put 2 spoons of sugar for 1 cup of tea. How many (1)
 spoons of sugar will be needed for 5 cups of tea ?

Q. 25) What is the perimeter of this triangle ? (1)



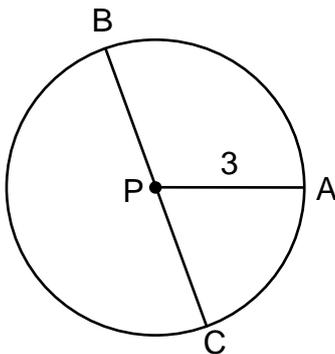
Perimeter = cm

Q. 26) What is the area of triangle ABC ? (1)



Area = cm²

Q. 27)



Radius PA = 3 cm (1)

Diameter BC = cm

Q. 28) $3a + 5a =$ (1)

Q. 29) $8x - 2x =$ (1)

Q. 30) Add : $(2a + b), (3a + b)$ (1)

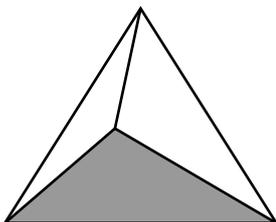
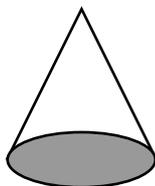
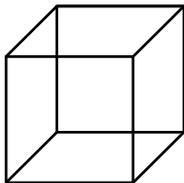
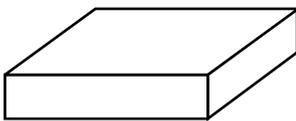
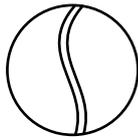
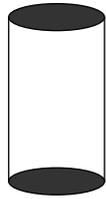
Q. 31) $10 \times 10 \times 10 =$ (1)

Q. 32) $10^5 =$ (1)

Q. 33) $2^2 \times 2^3 =$ (1)

Q. 33) Match the shape with the name.

(3)



Cuboid

Cone

Cylinder

Pyramid

Cube

Sphere

School : _____

Officer / Teacher / NLF - MRP

Class 8

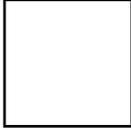
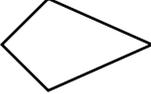
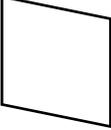
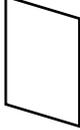
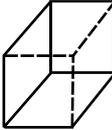
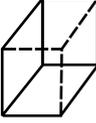
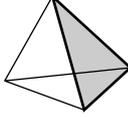
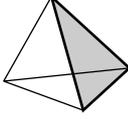
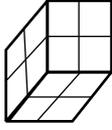
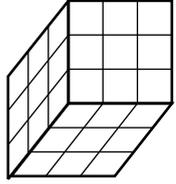
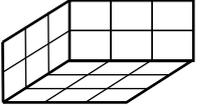
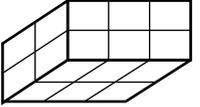
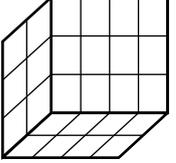
Practical Test : Note the marks in each chart :

	A	B	C	D	E	NOTE
1. Keep some rupees before each child (4 digit). Children write the number.						
2. Give six digit number card to each child. Children read the number.						
3. Give one shape to each child. Children answer the questions related to that shape.						
4. Give one 3D shape to each child. Children answer a question related to that shape.						
5. Give a shape made of Jodo blocks to each child. Children find its volume.						

If the child answers correctly mark ✓. If the child answers correctly with a little help mark ✕. If the child cannot answer, mark X.

Class 8

Practical Test : Note the marks in each chart

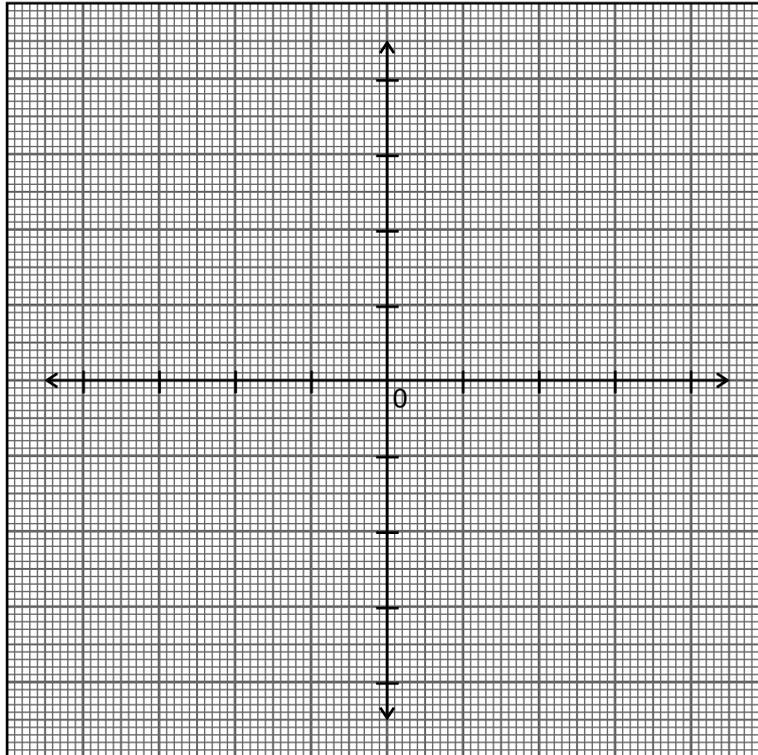
	A	B	C	D	E
1. Keep some rupees before each child. Children write the number.	3245	3045	3205	3240	3005
2. Children read the 6 digit number on their cards.	4,00,035	4,00,500	2,42,000	2,00,000	3,54,632
3. Give one shape to each child. Ask a question related to that shape.					
	Are opposite sides equal ?	Show the equal sides.	Show the equal angles.	Show the sides which are equal	Are all sides equal?
4. Teacher gives one shape to each child (3D). Children answer a question related to that shape.					
	How many faces ?	How many vertices ?	How many edges ?	How many faces ?	How many vertices ?
5. Teacher gives a shape made of Jodo blocks to each child. Children find its volume.					

School _____

Name _____

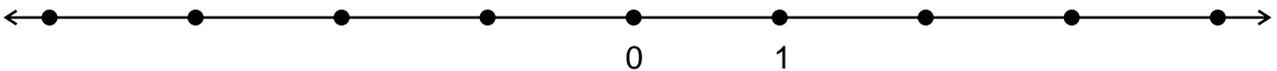
Class 8 Written Test

- Q. 1) Plot the given points : (2)
A (3, 2) B (-3, 2)

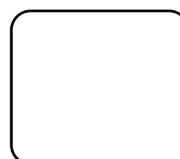
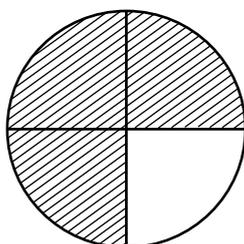


- Q. 2) Show the following numbers on the given number line. (2)

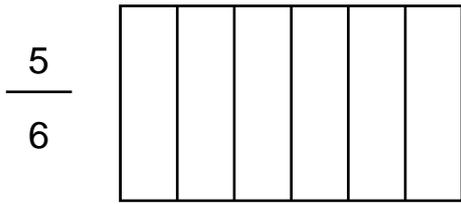
3, -2, $\frac{1}{2}$, $-\frac{1}{4}$



- Q. 3) Write the coloured part in the form of fraction. (1)



Q. 4) Colour the given fraction. (1)



Q. 5) Solve. (1)

$$\frac{3}{8} + \frac{1}{8}$$

Q. 6) Solve. (1)

$$\frac{1}{2} + \frac{1}{4}$$

Q. 7) Solve. (1)

$$(-5) + (+8) =$$

Q. 8) Solve. (1)

$$(+3) - (-2) =$$

Q. 9) Solve. (1)

$$(-2) \times (-3) =$$

Q. 10) Solve. (1)

$$\frac{(-3)}{(+2)}$$

Q. 11) Solve : (1)

$$\frac{3}{4} \times \frac{2}{6}$$

Q. 12) Find the value of x if (1)

$$x + 2 = 5$$

Q. 13. Find x, if (1)

$$x - 3 = 4$$

Q. 14. Find x, if (1)

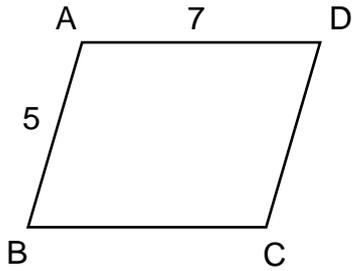
$$3x = 12$$

Q. 15. Find x, if (1)

$$\frac{x}{2} = 5$$

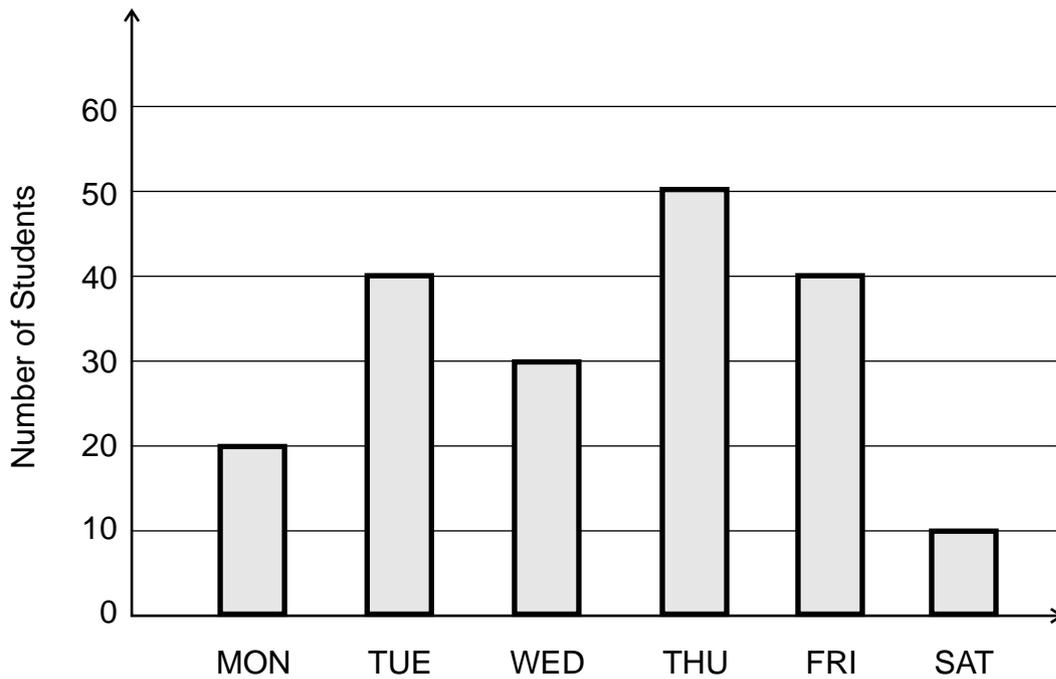
Q. 16. ABCD is a parallelogram.

(1)



What is the length of side DC ?

Q. 17. The graph shows attendance of students in one week ?



1) How many children were present on Tuesday ?

(1)

2) When was the attendance the least ?

(1)

3) What are the two main reasons of irregular attendance ?

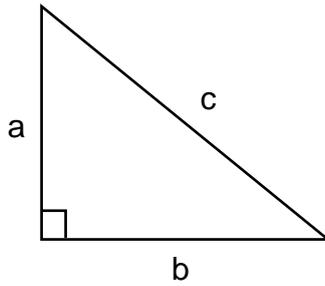
1) _____

2) _____

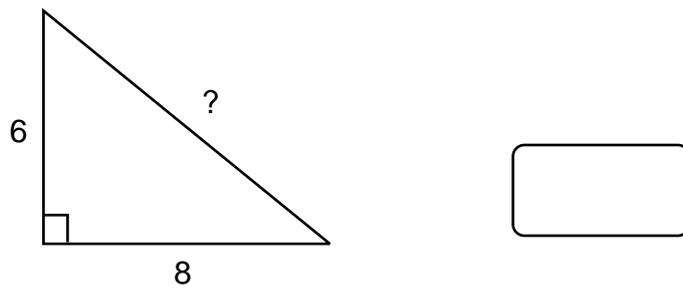
Q. 18. Circle the perfect squares. (2)

32 36 100 28

Q, 19. Write the Pythagoras theorem for the following right angled triangle. (1)



Q. 20. Find the hypotenuse using Pythagoras theorem : (1)



Q. 21.

$10^3 =$ (1)

Q. 22. When we make rice, we take rice grains and water in the ratio 1 : 2. (1)

If Rajib took 3 kilograms of rice grains, how much water should he take?

Q. 23. Add (1)
 $p^2 + 3p + 7$ and $p^2 + 2p + 3$

Q. 24. Subtract $2x + 3y$ from $6x + 3y$ (2)

Q. 25.
 $(x + 3)^2 =$ (2)

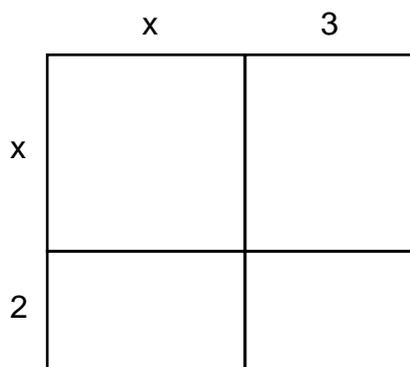
Q. 26.
 $(a - 5)^2 =$ (2)

Q. 27.

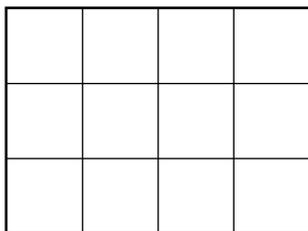
$$(m + 3) (m - 3) = \quad (2)$$

Q. 28. Multiply. (2)

$$(x + 3) (x + 2)$$

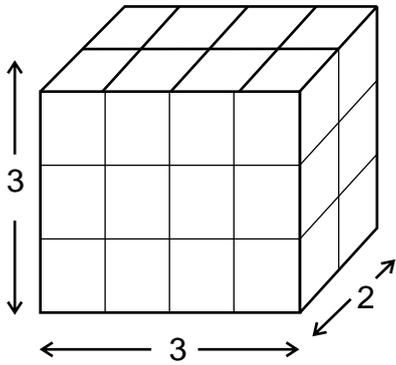


Q. 29. What is the area of this rectangle ? (2)



Q. 30. What is the volume of following cuboid ?

(2)



Q. 31. Write the formula for area of each shape in the following table :

(5)

Shape	Diagram	Area
Rectangle		
Square		
Triangle		
Parallelogram		
Circle		

Q. 32.

$$3^3 = \quad (1)$$

Q. 33.

$$3^2 \times 3^3 = 3^{\square} \quad (2)$$

Q. 34.

$$5^0 = \square \quad (1)$$

Q. 35.

$$\frac{6^2}{6} = \square \quad (1)$$

Q. 36. 4 persons complete one work in two days. In how many days 8 person will complete the same work ? (2)

Q. 37. Find the factors of : (2)
 $12ab + 4b$