



Nalanda College - Colombo 10
First Term Evaluation - 2020
Grade - 8
Mathematics

Time:- 2 hours

Name -

Class -

Index No.

Part I

Answer all questions.

1. Write the next two term of the following number pattern.

1 , 4 , 9 , 16 , ,

2. Simplify.

$$5 - 2\frac{1}{4}$$

3. Find the H.C.F of the following.

48, 60

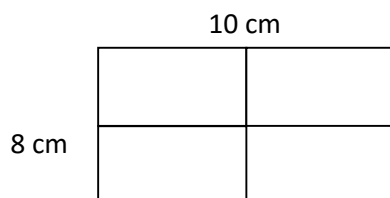
4. Filling the blank.

$$72 \div \dots = (-8)$$

5. Find the value.

$$0 - (-5)$$

6. Find the perimeter.



7. Find the value.

$$(-2)^3 + (+3)^2$$

8. Filling the blank.

$$3t \ 9kg = \dots \text{ Kg}$$

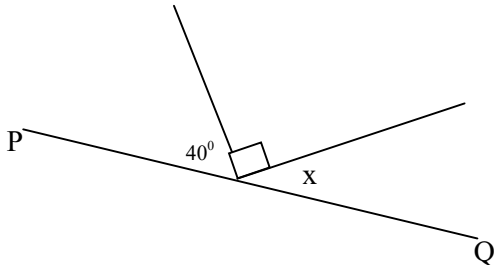
9. Filling the blank if following angles are on a straight line.

$75^{\circ}, 80^{\circ}, \dots$

10. Simplify.

$$5p - 8q + 3r - 2q + p$$

11. PQ is straight line. Find the magnitude of x .



12. Arrange the following in ascending order.

1.5 t, 1.05t, 150kg,

13. Give an example of a perfect square which has 9 in its unit place.

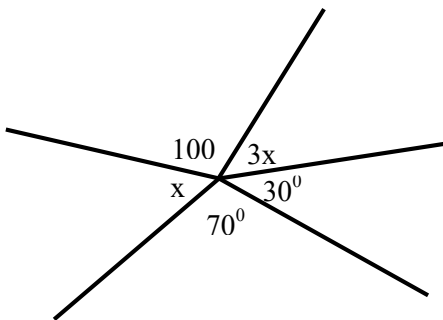
14. Express $36p^2$ as a power of a product.

15. Find the 14th triangular number using the general term.

16. Simplify.

$$-2x(x+4y)+7$$

17. Find x .



18. Evaluate.

$$\sqrt{2^2 \times 9 \times 25}$$

19. A rectangle is made by unfolding a wire frame which has the shape of equilateral triangle. The length of a side is 18cm of that triangle. If the breadth is 7cm, find the length of the rectangle.

20. If a mass of 13t can be loaded in to a lorry, how many sacks of rice can be loaded with mass of 25kg.

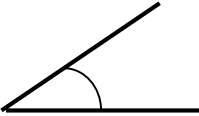

2 x 20 = 40 Marks

Part II

Answer first question and only another four questions.

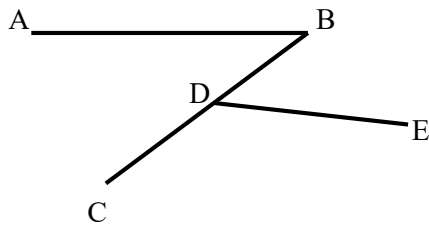
1. According to the lesson angle that you have learnt in the class room answer the following questions.

I. Fill in the blanks.

Name of the angle	figure	magnitude
a)		less than 90°
b) Right angle
c)	

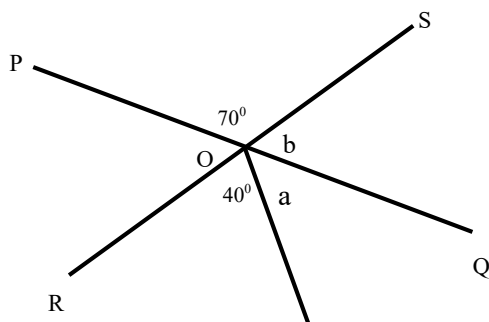
05 Marks

II. Is \widehat{ABC} and \widehat{CDE} a pair of adjacent angles. Give reason



02 Marks

III. The straight line segments PQ and RS intersect at O



- a) Find the magnitude of a.
- b) Find the magnitude of b.
- c) The supplement of \widehat{POS} is
- d) Name a pair of vertically opposite angles
- e) Filling the blank. $\widehat{POR} + \dots = 180^{\circ}$

09 Marks

2. A number pattern is made by attaching beads as shown below.



- I. Draw the next pattern.
- II. Write the terms of the number pattern.
- III. Find the general term.
- IV. How many beads are needed to make 10th stage of this pattern?
- V. Which stage of this pattern can be made by attaching 31 beads

11 Marks

3.

I. Simplify.

$$(+8) + (-3) =$$

II. Find the value using the number line.

$$(-2) - (-5) = \dots$$

III. Filling the blanks.

$$\begin{aligned} \text{a)} \quad & (+10) - (+2) \\ & = (+10) + \square \\ & = \square \end{aligned}$$

$$\begin{aligned} \text{b)} \quad & (-8) - (-2) \\ & = (-8) + \square \\ & = \square \end{aligned}$$

$$\text{c)} \quad \frac{\square \times (+4)}{(-3) \times \square} = \frac{(-36)}{\square} = 3$$

4. Observe the following price list and write the answers.

Rice	Sugar	Dhal
1 kg	500g	1kg
Rs. x	Rs. y	?

- I. If price of 1kg of dhal is more than Rs. 7 the price of 1kg of rice, find the cost of 1kg of dhal.
- II. Find the cost of 3 kg of rice and 500g of sugar.
- III. Find the cost of 2kg of dhal.
- IV. Find the total cost to prepare a parcel containing above quantities.
- V. Find the total cost to prepare such ten parcels.
- VI. What is the balance if you pay Rs. 5000 to buy ten parcels?

11 Marks

5.

I. Name two platonic solids.

II. Filling the blank.

	Solid	Shape of the face	The number of edges	The number of vertices
a)	Square pyramid	Square shaped face = 1 Triangular faces = 4
b)	Triangular faces = 2 Square shaped face = 3

III. Draw the shape of a face of regular dodecahedron.

IV. A certain solid has 9 vertices and 16 edges. It satisfies Euler's relationship. Find the number of faces it has.

11 Marks

6.

I. Find the H.C.F of the following numbers.

$$8xy, 40x, 32xb$$

II. Write down following algebraic expression as a product of factors,

a) Where one factor is a positive number.

b) Where one factor is a negative number.

$$-15a + 20b - 30$$

11 Marks

III. Simplify.

$$4x(7-5xy+y^2)$$

IV. Filling the blank.

$$(-28) = \dots\dots X \dots\dots$$

11 Marks