

Annual Examination 2015-16

Subject : Math's (E.M.)

Class : VIII

Time : 3 hrs

MM : 100

Q.1 Choose the correct answer - (5)

(i) **The perpendicular drawn from the centre of a circle to one of its chords-**

(a) Bisects it (b) Does not bisects it

(c) Trisects it (d) None of the these.

(ii) The sun of angles (in degrees) in each pair of opposite angles of a cyclic quadrilateral is-

(a) 120 (b) 160 (c) 180 (d) 360.

(iii) Circumference of a circle is 15.4cm. its diameter will be-

(a) 15.4cm. (b) 1.54cm. (c) 3.14cm. (d) 4.9cm.

(iv) In the Hero's formula $\sqrt{s(s-a)(s-b)(s-c)}$ of finding area of a triangle "S" denotes?

(a) Are of the triangle.

(b) Perimeter of the triangle.

(c) Semi perimeter of triangle.

(d) None of these.

(v) Arithmetic mean of 8, 6, 10, 12, 14, 16 is-

(a) 18 (b) 16 (c) 10 (d) 11

Q.2 Fill in the blanks- (5)

(i) The chords equidistant from the centre of a circle are.....

(ii) Angle in a semicircle is

(iii) Perimeter of a circle is also called its.....

(iv) Side of a rhombus is 5cm. and its height is 4cm. its area is.....

(v) The number of times a particular observation occurs is called its.....

Q.3 Match the following-

(5)

1. $\sqrt{7}$ \longrightarrow $(729)^{1/6}$
2. $\sqrt{24}$ \longrightarrow $(512)^{1/9}$
3. $3\sqrt{36}$ \longrightarrow $(36)^{1/3}$
4. $5\sqrt{512}$ \longrightarrow $(24)^{1/2}$
5. $6\sqrt{729}$ \longrightarrow $(7)^{1/2}$

Q.4 Find the value of each of the following-

(0)

1. $(4)^{3/2}$
2. $(8)^{2/3}$
3. $(27)^{2/3}$
4. $(64)^{2/3}$
5. $3\sqrt{125^2}$
6. $(64)^{5/6}$

Q.5 Solve the following question-

(0)

1- $\frac{5x-7}{3x} = 2$ 2- $\frac{4x+18}{5x} = \frac{2}{1}$

3- Products by using appropriate identity.

(a) $(x+2)(x+8)$ (b) $\left(9+\frac{1}{2}\right)\left(9+\frac{1}{2}\right)$

4- (102×105)

5- Using the urdhavtiryak for mula

$$(x+2) \times (x+3)$$

6- Evaluate $8x^2 + 27y^3$

$$2x + 3y = 8, \quad xy = 2$$

Q.6 (i) Sum of two positive numbers is 70 if the quotient obtained on dividing first number by the other is 4, find the numbers.

(ii) The age of Ramesh's after 5 years age of Ramesh's mother will be five times the age of Ramesh. Find their present ages.

(iii) ABCD is a quadrilateral in the following diagram each of its angle is right angle.

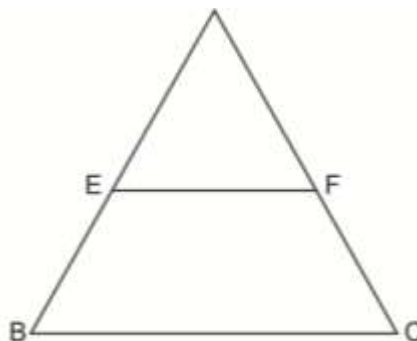
- (a) Is $AD \parallel BC$? why
- (b) Is $AB \parallel DC$? why



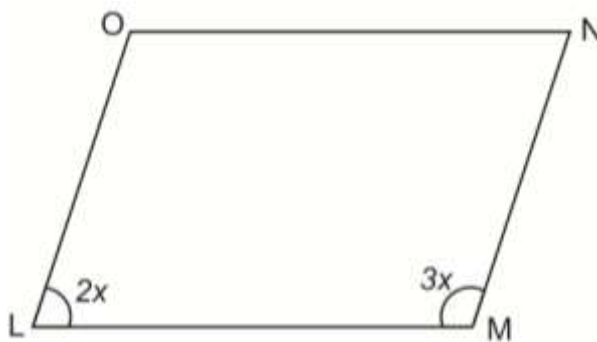
- (iv) $\triangle ABC$ is an isosceles triangle in which

$AB = AC$, E is mid – point of AB and $EF \parallel BC$, EF meets AC at point F. Is $\triangle AEF$ isosceles?

Justify your answer



- (v) Two adjacent angles of parallelogram are in ratio 2 : 3 find the measure of its all angles?



- (vi) Construct quadrilaterals ABCD of the following given measures.

- (vii) Construct a quadrilateral ABCD in which

$BC = 2.5\text{cm}$, $AB = AD = 3\text{cm}$, $BD = 5\text{cm}$ and $AC = 4\text{cm}$.

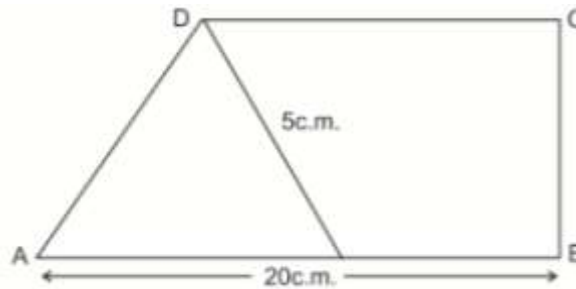
Q.7 (i) What do you understand by ATM? ()

(ii) What is the main objective of a saving Bank account?

Q.8 A chord of a circle of radius 13 cm. is at a distance of 5cm. from the centre of the circle find the length of the chord? ()

OR

Find the area of the parallelogram whose base is 20cm and altitude (height) is 5cm.

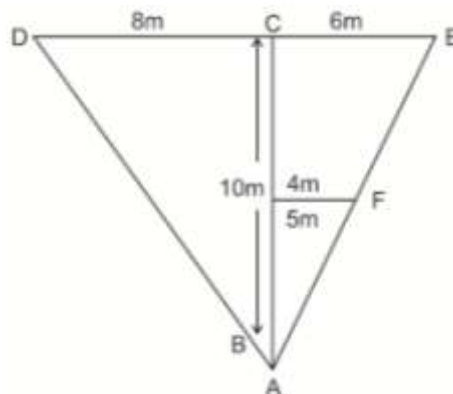


Q.9 Find the area of following triangles where.

(a) base = 18cm., height = 7cm.

OR

Find the area of the figure.



Q.10 The diameter of a cylinder is 10cm. and its height is 21cm. find the curved surface area of the cylinder.

Q.11 Marks obtained by eight students in an examination are as given below-

(i) 4, 4, 3, 1, 8, 10, 6, 12

OR

Find the mean of first ten natural numbers.