

आठवी - गणित (इंग्रजी माध्यम)



Maharashtra Academic Authority, Pune 30.

Educationally Progressive Maharashtra (EPM)

Test for Academic Progress : Summative Evaluation 2 : 2017-18

Standard : Eight - Subject : Mathematics (Written)

Student's Name : _____ Roll No. :

School's Name : _____ Div. : _____

Center : _____ Taluka : _____ District : _____ Date : _____ / _____ / 2018

Q. No.	1	2	3	4	5	Practical/ Oral	Total	Teacher's Signature
Marks Obtained								
Maximum Marks	10	10	10	10	10	10	60	

Write here the answers of oral questions. (Each question carries one mark.)

M 1

M 2

M 3

M 4

M 5

Written Test

Each sub-question of Q. 1 to Q. 3 carries 1 mark. (Solve the example in blank space, if necessary.)

Q. 1 A) Write the numbers in words.

60512 _____

B) Write the number in figures.

Twenty five thousand and twenty-five

C) Expanded form of a number is given. Write the number.

$$90000 + 800 + 4 =$$

D) Add.

$$\begin{array}{r} 7538 \\ + 1673 \\ \hline \end{array}$$

E) In the occasion of Environment week, 55275 and 65079 trees were planted in Shirol and Hatkanangale districts respectively. Find the total number of trees planted in both the districts.

F) Subtract.

$$\begin{array}{r} 11625 \\ - 7052 \\ \hline \end{array}$$

G) An organisation decided to deposit ₹ 75000 for a social cause. People contributed ₹ 81650, how much more amount is collected than the decided amount ?

H) Multiply.

$$\begin{array}{r} 4167 \\ \times 43 \\ \hline \end{array}$$

J) Divide. $2691 \div 13$

K) In a workshop of paper bag making, each student made 15 paper bags. If there are 275 students, then how many total paper bags were made ?

Q. 2 A) Write the following in words.

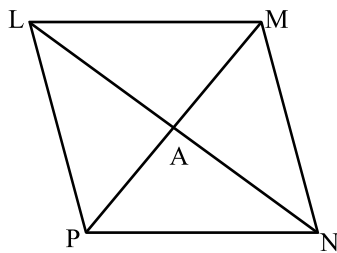
$-\sqrt{324}$ _____

B) Find the height of a parallelogram having area equal to 104 sq.cm. and base of the parallelogram is 13 cm.

C) Solve the following equation.

$$\frac{x + 26}{7} = 2x$$

D) Diagonals LN and MP of a rhombus LMNP intersect each other at point A. Find the $m\angle MAN$?

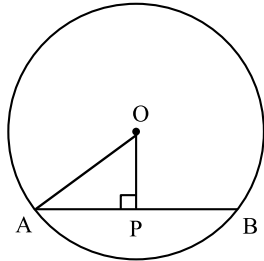


$m\angle MAN =$

E) Circle the irrational number.

$$\sqrt{36}, \quad \sqrt{121}, \quad 3.25, \quad \sqrt{17}$$

- F) The radius of a circle with centre 'O' is 5 cm. If the perpendicular distance from the centre to the chord AB is 3 cm, then find the length of the chord AB.



- G) Observe the table and write the type of variation.

Speed (km/hr)	30	45	120	20
Time (hrs)	6	4	1.5	9

- H) The frequency distribution table shows information regarding number of animals possessed by 40 farmers. Fill in the blanks according to the given information.

No. of animals	Tally Mark	Frequency
1		03
2	
3	12
4	 	09
	Total Frequency =

- J) Multiply.

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

K) Radius of a circle is 14 cm, find the area of the circle.

Q. 3 A) Write the cube root of 216.

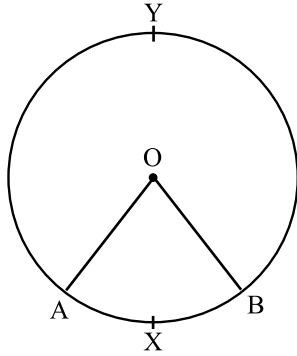
B) Write the degree of polynomial $3x^2 - 7x + 8$

C) The circumference of the base of a cylinder is 88 cm. Its height is 20 cm. What is the surface area of the cylinder?

D) Find the value of.

$$\left(\frac{1}{3^2}\right)^4 =$$

- E)** The measure of arc AXB in a circle with centre 'O' is 80° . Find the $m\angle AOB$.



$$m\angle AOB = \boxed{}$$

- F)** Divide.

$$14n^6 \div 7n^2$$

- G)** A salesperson sold boxes of incense sticks worth ₹ 750. Find the commission he receives at the rate of 4%.

- H)** Factorise.

$$25m^2 - 36n^2$$

J) Find the surface area of a sphere having radius 7 cm.

K) Fill in the boxes with the correct number.

$$(15 \times 13)^{\frac{1}{5}} = 15^{\square} \times 13^{\square}$$

Q. 4 and 5 : Each Sub-question carries 2 marks.

Q. 4 A) Construct $\square ABCD$ such that $l(AB) = 3.5$ cm, $l(BC) = 4.5$ cm, $l(CD) = 4$ cm, $m\angle B = 110^\circ$ and $m\angle C = 80^\circ$.

B) Factorise.

$$8a^3 - 27b^3$$

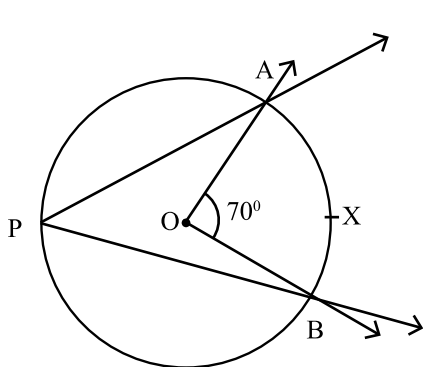
C) Find the volume of the cone, if the base radius is 6 cm and height is 7 cm.

D) Divide the following and fill in the blanks. $y + 1 \overline{) 2y^3 + 6y^2 + 12y + 8}$

Dividend = Divisor \times Quotient + Remainder

$$(2y^3 + 6y^2 + 12y + 8) = (y + 1) \times (\text{_____}) + (\text{_____})$$

E) In the following figure, the central angle is 70° , find the inscribed angle. Write the reason.



Measure of inscribed angle =

Reason _____

Q. 5 A) Joseph bought a car of ₹ 1,00,000. Every year there is 15% depreciation in the rate, then after 2 years what will be the cost of the vehicle ?

B) Simplify.

$$x^{\frac{1}{5}} \div \frac{1}{7x}$$

C) In a shop Pradnya bought a 100 rupee article for 90 rupees while Shreya bought a 200 rupee article for 190 rupees. Find which transaction is more profitable and why ?

D) Classify the polynomials into monomial, binomial and trinomial.

$(15m^2 - 7m, 10y^2 + 8y - 4, -16p, 17 - x^2)$

Monomial _____

Binomial _____

Trinomial _____

E) The following table gives information on the sales of Mango and Chocolate ice-cream in two ice-cream centres for the month of March.

Ice-cream flavour	Mayur centre	Madhur centre
Mango	150	200
Chocolate	300	100

From the above information taking 1 cm = 50 cups on Y-axis draw a joint bar graph.

