State Council for Educational Research and Training, Maharashtra,Pune.

Bridge Course – Post Test

Sub: Mathematics Standard Nine Marks — 25

Student Name – .....

Q.1: Choose the correct alternative answer for each of the following questions. (Marks - 5)

1) Out of the following ……is a rational number.

A) $\sqrt{2}$ B) $\sqrt{5}$ C) 3 D) π

2) If the measures of two angles of a triangle are 30^0 and 40^0 , then find the measure of its third angle.

A) 20^0 B) 110^0 C) 290^0 D) 30^0

3) In a right angled triangle , the length of the median drawn on the hypotenuse is ..... the length of the hypotenuse.

A) double B) one fourth C) four times D) half

4) 7th root of 128 is ……. .

A) 4 B) 8 C) 2 D) 6

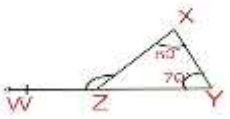
5) Measure of the circle is ……. .

A) 0^o B) 90^o C) 180^o D) 360^o

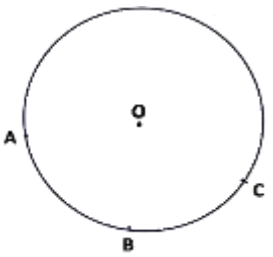
Q.2: Solve (Marks - 6)

1) Write the rational number $\frac{22}{3}$ in decimal form.

2) From the adjoining figure, find $m\angle$XZW.

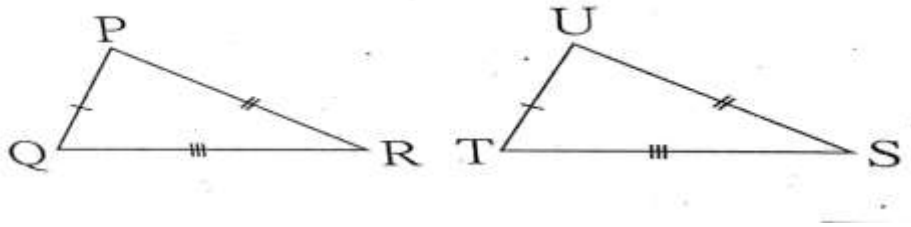


3) In the circle with centre O, write the name of any one major arc.



4) Add $(2x^2 + 3x + 7) + (3x^2 + 2x - 5)$

5) Observe the following figure and state the test by which the triangles are congruent.



6) $\angle P$ and $\angle Q$ are supplementary angles of each other . If the measure of $\angle Q$ is $80°$ then find the measure of $\angle P$.

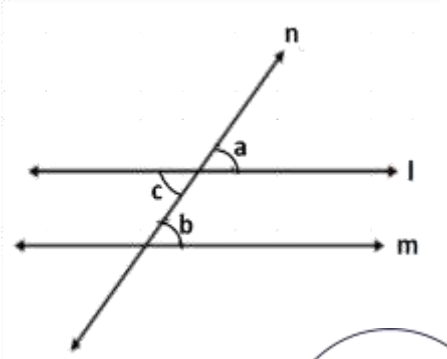
Q.3: Solve **(Marks - 8)**

1) Show the number $\sqrt{2}$ on the number line.

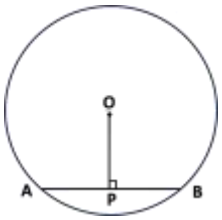
2) In the figure line ℓ || line m and line n is their transversal.

i) If $m\angle c = 60^0$, then $m\angle b$ = ?

ii) State which type of pair of $\angle b$ and $\angle a$ is ?



3) In a circle with centre O , seg AB is a chord . ℓ(AB) = 8 cm.
Seg OP $\perp$ chord AB, if ℓ(OP) = 3 cm then find the radius of the circle.



4) Expand . $(x + 2y)^2$

Q.4: Solve the following sub-questions. **(Marks - 6)**

1) Construct quadrilateral KING such that KI = KG = 6cm, IN = GN = 4.5 cm and IG = 7.5 cm.

2) Multiply and write the degree of the product.

$(x^2 - 4x + 8)(x - 1)$