State Council for Educational Research and Training, Maharashtra

Bridge Course — Pre 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 an irrational number.

A) $\sqrt{9}$ B) $\sqrt{3}$ C) 3 D) 0

2) If the measures of two angles of a triangle are 60^0 and 50^0 , then find the measure of third angle.

A) 20^0 B) 70^0 C) 110^0 D) 250^0

3) Median drawn on hypotenuse of a right angled triangle is _____ of the length of hypotenuse .

A) double B) five times C) four times D) half

4) Cube root of 64 is _____ .

A) 2 B) 8 C) 16 D) 4

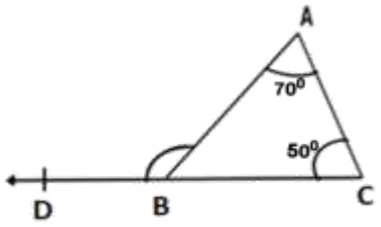
5) Measure of semicircular arc is _____ .

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

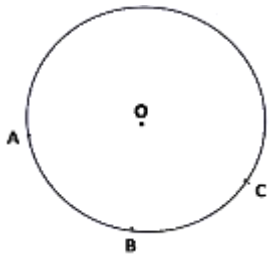
Q.2: Solve **(Marks - 6)**

1) Write the following fraction in decimal form . $\frac{22}{3}$

2) From the adjoining figure find measure of $\angle ABC$

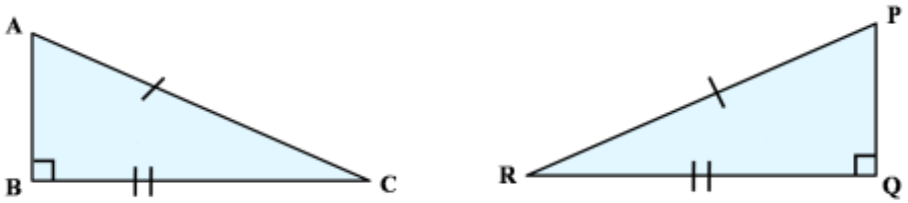


3) Write the name of any one minor arc from the adjoining figure of circle with center O.



4) Add $(2x^2 - 4x + 6) + (4x^2 + 5x - 7)$

5) Write the name of the test by which following triangles are congruent .



6) $\angle r$ and $\angle s$ are vertically opposite angles .If the measure of angle r is 70° then find the measure of angle s .

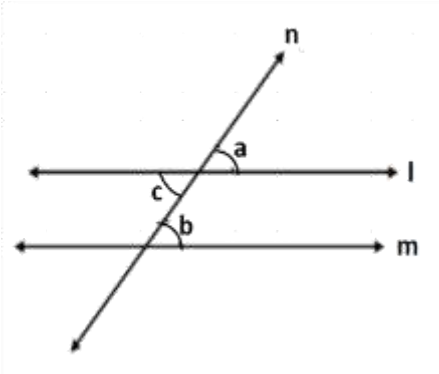
Q.3: - Solve **(Marks - 8)**

1) Represent $\sqrt{3}$ on a number line.

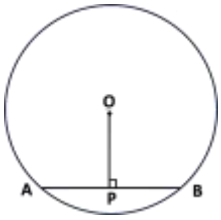
2) In the figure line / || line m and line n is their transversal.

i) Write the type of pair of $\angle b$ and $\angle c$.

ii) If $m\angle a = 50^0$ then $m\angle b$ = ?



3) In a circle with centre O , seg AB is a chord . l (AB) = 6 cm.
Seg OP ⊥ chord AB, if ℓ(OP) = 4 cm then find the radius of the circle.



4) Expand . $(m + 3n)^2$

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

1) Construct $\triangle$ABC such that ℓ (AB) = 5.2 cm, ℓ (BC) = 5.8 cm and ℓ (AC) = 6.3.

2) Multiply and write the degree of the product.

$(x^2 - 6x + 8) (x - 2)$