Class-IX Sample Questions

1. If x = 5+ $\sqrt{24}$, find the value of $\left(x^2+\frac{1}{x^2}\right)$

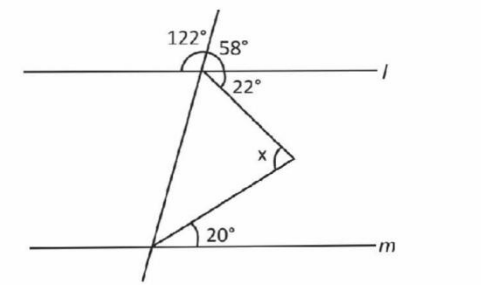
(a) 100

(b) 24

(c) 98

(d) 25

2. The value of ‘x’ in the following figure, if i II m is:



(a) 58°

(b) 22°

(c) 20°

(d) 42°

3. Find the remainder when $4x^4-3x^3-2x^2+x-7$ is divided by $x+\frac{2}{3}$

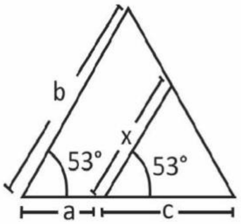
(a) $\frac{-57}{8}$

(b) -3

(c) $\frac{-557}{81}$

(d) $\frac{221}{7}$

4. In the figure given below, the relation between a, b, c and x is:



(a) $x=\frac{ab}{a+b}$

(b) $x=\frac{bc}{a+c}$

(c) $x=\frac{ac}{b+c}$

(d) $x=\frac{abc}{a+b+c}$

5. The area of the region bounded by 2x+y = 6, 2x—y + 2 = 0 and x—axis is:

(A) 4 sq. units

(B) 6 sq. units

(C) 8 sq. units

(D) 2 sq. units

6. if cos $\theta=\frac{1}{\sqrt{2}}$, then $\frac{2\cos^2\theta+3\tan^2\theta}{4\cot^2\theta-\sin^2\theta}$ is equal to

(a) $\frac{8}{7}$

(b) $\frac{8}{9}$

(c) $\frac{9}{8}$

(d) $\frac{7}{8}$

7. A two digit number is obtained by either multiplying the sum of digits by 8 and adding

1 or by multiplying the difference of digits by 13 and adding 2. The number is:

(a) 14

(b) 41

(c) 51

(d) 13

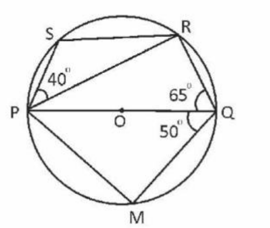
8. The measure of $\angle QPM$ in the following figure is:

(a) 65°

(b) 50°

(c) 40°

(d) 72°



9. Three years ago, the mean age of Hanson's family of 5 members was 17. A baby having been born, the average age of his family remains same today. The present age of the baby is:

(a) 1 year

(b) 1.5 years

(c) 2.5 years

(d) 2 years

10. The volume of the shaded region in the following figure is:

(a) $8\pi\ \text{cm}^3$

(b) $4\pi\ \text{cm}^3$

(c) $2\pi\ \text{cm}^3$

(d) $12\pi\ \text{cm}^3$