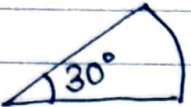


VIII Homework (For Wednesday) [HOTS questions]

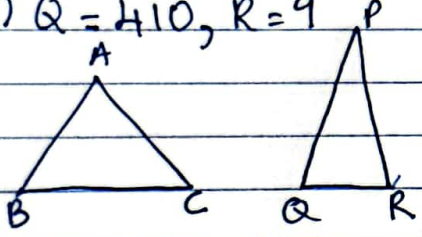
- 1) The integer that is 25 more than (-435) is
(a) -450 (b) -460 (c) -410 (d) 460
- 2) $9.03 \div 899.8$ is closest to (a) 0.01 (b) 0.001 (c) 1 (d) 100

3) $3^4 + 3^2 = 9 \times \square$

- 4)  How many pieces exactly like this one are needed to form a complete circle (circular region)?

- 5) Nandini makes halwa and divides it into five equal portions. Find the percentage of each share.
(a) 5% (b) 10% (c) 20% (d) 25%

- 6) $7799 \div 19$?
(a) $Q = 41, R = 0$ (b) $Q = 41, R = 9$ (c) $Q = 41.4, R = 14$
(d) $Q = 410, R = 9$

- 7)  The height of $\triangle PQR$ is double the height of $\triangle ABC$, while the base of $\triangle ABC$ is double the base of $\triangle PQR$. The ratio of the areas of $\triangle ABC$ and $\triangle PQR$ will be (a) $1:1$ (b) $1:2$ (c) $2:1$ (d) $2:3$

- 8) $(xy)^2 \times (xy)^2 = \dots$ (a) $2xy^2$ (b) x^2y^2 (c) x^2y^4 (d) x^4y^4

- 9) Anand ran a 4 km stretch at an average speed of 10 km an hour. If he started his run at 5.00 am, at what time did he finish?

- 10) The average height of Radhika, Gopu, Ashish and Komal is 118 cm. What is the sum of their heights?
(a) 156 cm (b) 472 cm (c) 590 cm (d) insufficient data

- 11) AB, BC, CD are three consecutive sides of a regular polygon. If $\angle BAC = 20^\circ$, find

- (i) Its each interior angle
(ii) Its each exterior angle
(iii) The no. of sides in the polygon.

VIII

$$1) x = -435 + 25 = -410 \text{ (c)}$$

$$2) \frac{9.03}{899.8} \approx \frac{9}{900} = \frac{1}{100} = 0.01 \text{ (a)}$$

$$3) 81 + 9 = 9 \times \underline{\quad}$$

$$\Rightarrow 90 = 9 \times 10$$

$$4) \text{no. of pieces} = \frac{360^\circ}{30^\circ} = 12 //$$

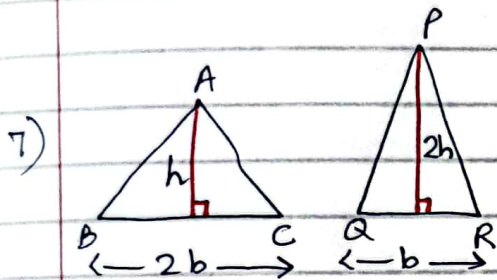
$$5) \frac{1}{5} \times 100\% = 20\% \text{ (c)}$$

$$6) \frac{7799}{19}$$

$$\begin{array}{r} 410 \\ 19 \overline{) 7799} \\ \underline{76} \\ 19 \\ \underline{19} \\ 9 \end{array}$$

Quotient = 410

Remainder = 9 (d)



$$\frac{\text{area}(\triangle ABC)}{\text{area}(\triangle PQR)} = \frac{\frac{1}{2} \times BC \times h}{\frac{1}{2} \times QR \times 2h}$$

$$= \frac{2b \times h}{b \times 2h} = \frac{2}{2} = 1$$

\therefore The required ratio is 1:1 (a)

$$8) (xy)^2 \times (xy)^2 = x^2 y^2 \times x^2 y^2 = x^4 y^4 \text{ (d)}$$

$$9) \text{distance covered} = 4 \text{ km}$$

$$\text{Speed} = 10 \text{ km/hr}$$

$$\text{Time taken} = \frac{\text{Distance}}{\text{Speed}} = \frac{4 \text{ hrs}}{10} = \frac{4 \times 60 \text{ minutes}}{10}$$

$$= 24 \text{ minutes}$$

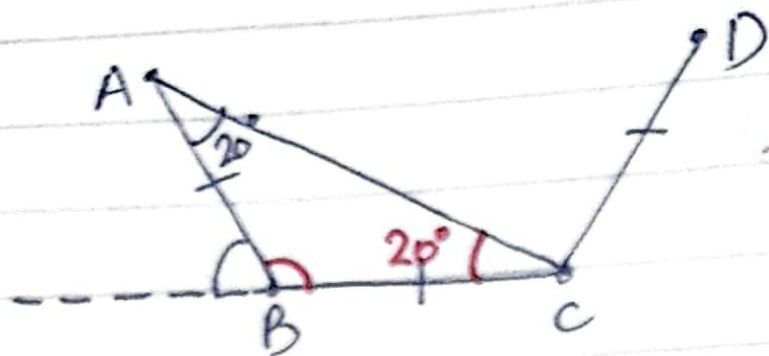
\therefore The finishing time = 5:24 am //

$$10) \text{average height} = \frac{\text{Sum of heights}}{\text{no. of persons}}$$

$$\Rightarrow 118 = \frac{\text{Sum}}{4}$$

$$\therefore \text{Sum of heights} = 118 \times 4 = 472 \text{ m (b)}$$

11)



Since $AB = BC \Rightarrow \angle BAC = \angle BCA = 20^\circ$

Using angle sum property

in $\triangle ABC$,

$$\begin{aligned}\angle ABC &= 180^\circ - (20^\circ + 20^\circ) \\ &= 180^\circ - 40^\circ = 140^\circ\end{aligned}$$

\therefore each interior angle = 140°

each exterior angle = $180^\circ - 140^\circ = 40^\circ$

no. of sides = $\frac{360^\circ}{40^\circ}$

$$= \frac{360^\circ}{40^\circ} = 9 \text{ sides} //$$