EduSahara™ Assignment

Name : Trigonometry Word Problems

Chapter : Trigonometrical Identities

Grade : ICSE Grade X

1. In $\triangle MNO$, right angled at N, if $\tan M = \frac{1}{3}$, find $\sin M \cos O + \cos M \sin O$

   (i) $\frac{1}{10}\sqrt{10}$ (ii) $\frac{3}{10}\sqrt{10}$ (iii) $\sqrt{10}$ (iv) 1 (v) $\frac{1}{3}\sqrt{10}$

2. In $\triangle GHI$, right angled at H, if $\tan G = \frac{1}{2}$, find $\cos G \cos I - \sin G \sin I$

   (i) $\frac{1}{2}\sqrt{5}$ (ii) $\sqrt{5}$ (iii) $\frac{2}{5}\sqrt{5}$ (iv) 0 (v) $\frac{1}{5}\sqrt{5}$

3. Find the length of the side of a 14-sided regular polygon inscribed in a circle of radius 1 m

   (i) 0.5328 m (ii) 0.4328 m (iii) 0.3328 m (iv) 0.4828 m

4. Find the length of the chord of the unit circle subtending an angle of 160° at the centre

   (i) 1.9696 (ii) 2.0196 (iii) 2.0696 (iv) 1.8696

5. Find the area of the right angled triangle with hypotenuse 3 cm and one of the acute angle being 34°

   (i) 1.0861 cm (ii) 3.0861 cm (iii) 2.0861 cm (iv) 4.0861 cm

6. Find the area of an isosceles triangle with base 6 cm and vertical angle 46°

   (i) 23.2014 cm (ii) 21.2014 cm (iii) 20.2014 cm (iv) 22.2014 cm

7. If P, Q and R are the interior angles of a triangle, then $\sin(\frac{P+Q}{2}) =$

   (i) $\cos(\frac{R}{2})$ (ii) $\sin R$ (iii) $\sin(\frac{R}{2})$ (iv) $\cos(\frac{P}{2})$ (v) $\sin(\frac{P}{2})$

Assignment Key

1) (iv)	2) (iv)	3) (ii)	4) (i)	5) (iii)	6) (ii)
7) (i)					