EduSahara™ Assignment

Name : Trigonometry Word Problems

Chapter : Trigonometrical Identities

Grade : ICSE Grade X

1. In $\triangle NOP$, right angled at O, if $\tan N = \frac{1}{2}$, find $\sin N \cos P + \cos N \sin P$

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

2. In $\triangle MNO$, right angled at N, if $\tan M = \frac{1}{9}$, find $\cos M \cos O - \sin M \sin O$

   (i) $\frac{1}{82}\sqrt{82}$ (ii) $\sqrt{82}$ (iii) 0 (iv) $\frac{1}{9}\sqrt{82}$ (v) $\frac{9}{82}\sqrt{82}$

3. Find the length of the side of a 9-sided regular polygon inscribed in a circle of radius 1 m

   (i) 0.5840 m (ii) 0.7340 m (iii) 0.7840 m (iv) 0.6840 m

4. Find the length of the chord of the unit circle subtending an angle of 116° at the centre

   (i) 1.7900 (ii) 1.7400 (iii) 1.6900 (iv) 1.5900

5. Find the area of the right angled triangle with hypotenuse 5 cm and one of the acute angle being 33°

   (i) 7.7095 cm (ii) 6.7095 cm (iii) 4.7095 cm (iv) 5.7095 cm

6. Find the area of an isosceles triangle with base 4 cm and vertical angle 48°

   (i) 10.9847 cm (ii) 8.9847 cm (iii) 9.9847 cm (iv) 7.9847 cm

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

   (i) $\sin X$ (ii) $\sin(\frac{X}{2})$ (iii) $\cos(\frac{V}{2})$ (iv) $\cos(\frac{X}{2})$ (v) $\sin(\frac{V}{2})$

Assignment Key

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