EduSahara™ Assignment

Name : Trigonometry Word Problems

Chapter : Trigonometrical Identities

Grade : ICSE Grade X

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

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

2. In $\triangle KLM$, right angled at L, if $\tan K = \frac{1}{3}$, find $\cos K \cos M - \sin K \sin M$

   (i) $\frac{3}{10}\sqrt{10}$ (ii) $\frac{1}{10}\sqrt{10}$ (iii) $\sqrt{10}$ (iv) $\frac{1}{3}\sqrt{10}$ (v) 0

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

   (i) 1.7820 m (ii) 1.6320 m (iii) 1.8320 m (iv) 1.7320 m

4. Find the length of the chord of the unit circle subtending an angle of 135° at the centre

   (i) 1.7478 (ii) 1.8478 (iii) 1.9478 (iv) 1.8978

5. Find the area of the right angled triangle with hypotenuse 7 cm and one of the acute angle being 38°

   (i) 12.8867 cm (ii) 10.8867 cm (iii) 13.8867 cm (iv) 11.8867 cm

6. Find the area of an isosceles triangle with base 4 cm and vertical angle 66°

   (i) 7.1595 cm (ii) 8.1595 cm (iii) 5.1595 cm (iv) 6.1595 cm

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

   (i) $\sin U$ (ii) $\sin(\frac{S}{2})$ (iii) $\cos(\frac{S}{2})$ (iv) $\sin(\frac{U}{2})$ (v) $\cos(\frac{U}{2})$

Assignment Key

1) (ii)	2) (v)	3) (iv)	4) (ii)	5) (iv)	6) (iv)
7) (v)					