EduSahara™ Assignment

Name : Triangle Angle Properties

Chapter : Triangles and Its Properties

Grade : SSC Grade VII

1. Two angles of a triangle measure 55° and 69° respectively. Find the measure of the third angle of the triangle

   (i) 57° (ii) 54° (iii) 55° (iv) 56° (v) 58°

2. The angles of a triangle ABC are in the ratio 13 : 14 : 63. Find the measure of each angle of the triangle

   (i) A=24°,B=30°,C=126° (ii) A=26°,B=26°,C=128° (iii) A=24°,B=28°,C=128°

   (iv) A=26°,B=28°,C=126° (v) A=28°,B=28°,C=124°

3. In △EFG, if ∠E = 64° and ∠F = 52°, find the measure of ∠G

   (i) G=66° (ii) G=63° (iii) G=64° (iv) G=65° (v) G=62°

4. In △JKL, if ∠J = 30° and ∠K = ∠L, find the measure of each of the equal angles of the triangle

   (i) 77° (ii) 74° (iii) 73° (iv) 75° (v) 76°

5. One angle of a triangle measures 30° and the other two angles are in the ratio 4 : 11. Find these angles.

   (i) B=41°,C=111° (ii) B=40°,C=110° (iii) B=39°,C=109° (iv) B=42°,C=112° (v) B=38°,C=108°

6. In a right-angled triangle, the two acute angles are in the ratio 1 : 5. Find these angles.

   (i) A=14°,C=74° (ii) A=17°,C=77° (iii) A=16°,C=76° (iv) A=13°,C=73° (v) A=15°,C=75°

7. One of the two equal angles of an isosceles triangle measures 52°. Find the measure of each angle of the triangle.

   (i) A=52°,B=50°,C=78° (ii) A=50°,B=54°,C=76° (iii) A=54°,B=52°,C=74° (iv) A=50°,B=52°,C=78°

   (v) A=52°,B=52°,C=76°

8. Find the measure of each of the two equal angles of an isosceles right-angled triangle.

   (i) 45° (ii) 47° (iii) 46° (iv) 43° (v) 44°

9. If all the three angles of a triangle are of the same measure, find the measure of each of the angles.

   (i) 60° (ii) 58° (iii) 62° (iv) 61° (v) 59°

10. In a right-angled triangle if one of the acute angles is 29°, find the measure of the other acute angle.

    (i) 61° (ii) 63° (iii) 60° (iv) 62° (v) 59°

11. The vertical angle of an isosceles triangle is twice the sum of its base angles. Find each angle of the triangle.

    (i) A=120°,B=28°,C=32° (ii) A=122°,B=30°,C=28° (iii) A=120°,B=30°,C=30°

    (iv) A=118°,B=32°,C=30° (v) A=118°,B=30°,C=32°

12. In an isosceles triangle, each base angle is four times its vertical angle. Find each angle of the triangle.

    (i) A=22°,B=80°,C=78° (ii) A=20°,B=78°,C=82° (iii) A=18°,B=82°,C=80° (iv) A=20°,B=80°,C=80°

    (v) A=18°,B=80°,C=82°

13. The ratio between the base angle and the vertical angle of an isosceles triangle is 7 : 4. Find each angle of the triangle

(i) $A=38°, B=72°, C=70°$ (ii) $A=42°, B=70°, C=68°$ (iii) $A=40°, B=68°, C=72°$ (iv) $A=38°, B=70°, C=72°$

(v) $A=40°, B=70°, C=70°$

14. Each of the two equal angles of an isosceles triangle is half the third angle. Find the angles of the triangle

(i) $X=43°, Y=92°, Z=45°$ (ii) $X=45°, Y=88°, Z=47°$ (iii) $X=45°, Y=90°, Z=45°$ (iv) $X=43°, Y=90°, Z=47°$

(v) $X=47°, Y=90°, Z=43°$

Assignment Key

1) (iv)	2) (iv)	3) (iii)	4) (iv)	5) (ii)	6) (v)
7) (v)	8) (i)	9) (i)	10) (i)	11) (iii)	12) (iv)
13) (v)	14) (iii)				