EduSahara™ Learning Center Assignment

Grade : Class VII, SSC
Chapter : Triangles and Its Properties
Name : Triangle Angle Properties
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1. Two angles of a triangle measure 62° and 62° respectively. Find the measure of the third angle of the triangle

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

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2. The angles of a triangle ABC are in the ratio 1 : 2 : 3. Find the measure of each angle of the triangle

   (i) A = 30°, B = 58°, C = 92°

   (ii) A = 28°, B = 62°, C = 90°

   (iii) A = 28°, B = 60°, C = 92°

   (iv) A = 32°, B = 60°, C = 88°

   (v) A = 30°, B = 60°, C = 90°

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3. In △EFG, if ∠E = 50° and ∠F = 57°, find the measure of ∠G

   (i) G = 75° (ii) G = 71° (iii) G = 74° (iv) G = 73° (v) G = 72°

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4. In △HIJ, if ∠H = 80° and ∠I = ∠J, find the measure of each of the equal angles of the triangle

   (i) 51° (ii) 49° (iii) 50° (iv) 52° (v) 48°

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5. One angle of a triangle measures 20° and the other two angles are in the ratio 3 : 13. Find these angles.

   (i) B = 28°, C = 128°

   (ii) B = 30°, C = 130°

   (iii) B = 29°, C = 129°

   (iv) B = 31°, C = 131°

   (v) B = 32°, C = 132°

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6. In a right-angled triangle, the two acute angles are in the ratio 1 : 2. Find these angles.

   (i) A = 32°, C = 62°

   (ii) A = 29°, C = 59°

   (iii) A = 28°, C = 58°

   (iv) A = 30°, C = 60°

(v) A = 31°, C = 61°

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7. One of the two equal angles of an isosceles triangle measures 44°. Find the measure of each angle of the triangle.

(i) A = 46°, B = 44°, C = 90°

(ii) A = 44°, B = 42°, C = 94°

(iii) A = 44°, B = 44°, C = 92°

(iv) A = 42°, B = 46°, C = 92°

(v) A = 42°, B = 44°, C = 94°

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

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

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

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

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10. In a right-angled triangle if one of the acute angles is 59°, find the measure of the other acute angle.

(i) 31° (ii) 32° (iii) 29° (iv) 33° (v) 30°

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

(i) A = 122°, B = 30°, C = 28°

(ii) A = 120°, B = 30°, C = 30°

(iii) A = 118°, B = 32°, C = 30°

(iv) A = 120°, B = 28°, C = 32°

(v) A = 118°, B = 30°, C = 32°

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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 = 80°, C = 80°

(iii) A = 20°, B = 78°, C = 82°

(iv) A = 18°, B = 80°, C = 82°

(v) A = 18°, B = 82°, C = 80°

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13. The ratio between the base angle and the vertical angle of an isosceles triangle is 11 : 14. Find each angle of the triangle

(i) A = 68°, B = 55°, C = 57°

(ii) A = 70°, B = 53°, C = 57°

(iii) A = 68°, B = 57°, C = 55°

(iv) A = 70°, B = 55°, C = 55°

(v) A = 72°, B = 55°, C = 53°

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

(i) X = 45°, Y = 88°, Z = 47°

(ii) X = 47°, Y = 90°, Z = 43°

(iii) X = 43°, Y = 92°, Z = 45°

(iv) X = 45°, Y = 90°, Z = 45°

(v) X = 43°, Y = 90°, Z = 47°

Assignment Key

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