

2.5c - PROBLEM SOLVING

The *perimeter* of a geometric figure is the _____ of all sides.

1. The perimeter of a triangle is 156 centimeters. If the lengths of the sides are consecutive even integers, find the length of each side.
2. The perimeter of an isosceles triangle (two sides are the same length) is 22 feet. If the shortest side is two feet less than the other two sides, find the length of the shortest side.
3. The perimeter of a triangle is 59 m. The second side is twice as long as the first. The third side is 3m longer than the first. How long is each side?
4. The length of a rectangle is two feet less than three times its width. Find the dimensions if the perimeter is 28 feet.
5. An architect designs a rectangular flower garden such that the width is exactly two-thirds of the length. If 260 feet of antique picket fencing are to be used, find the dimensions of the garden.

6. If the length of a rectangular parking lot is 10 meters less than twice its width, and the perimeter is 400 meters, find the length of the parking lot.

The sum of the measure of the angles of a triangle is _____ degrees.

7. The second angle of a triangle is 3 times as large as the first. The third angle is 20° less than the first. Find the measure of each angle.
8. The second angle of a triangle is twice as large as the first angle. The third angle is 35° greater than the second angle. How large is the first angle?
9. The second angle of a triangle is 32° more than the first. The third angle is twice as large as the second. How large are the angles?
10. The second angle of a triangle is five times as large as the first. The third angle is 60° less than the sum of the other two angles. Find the measure of each angle.