

GEOMETRY PROBLEMS

1. The length of a rectangle is three times its width and its perimeter is 48 feet. Find its length and its width.
2. A rectangle was formed by placing two equal squares side by side. The perimeter of the rectangle was 18 inches. What was the side of each square?
3. 860 rods of wire are used to build a wire fence, five strands high, around a square field. How long is a side of the square?
4. The sum of the three angles of triangle ABC is 180 degrees. If angle B is twice as large as angle A, and angle C is three times as large as angle A, find the measure of each of the angles in degrees.
5. The sum of the angles of a triangle is 180 degrees. If two of these angles are equal and the third angle is three times either of the other angles, how many degrees are in each angle?
6. The sum of the angles A, B, and C, on the same side of the straight line is 180 degrees. If angle A equals angle C, and angle B is four times angle A, how many degrees are in each angle?
7. One side of a triangle is twice the other. The third side is 8 inches and the perimeter is 26 inches. How long is each side?
8. Two sides of a triangle may be represented by $2n + 1$ and $3n - 2$. If the perimeter is $6n + 5$, what represents the third side? If the measure of the perimeter is 65 inches, how long is each side?
9. The second angle of a triangle is 45 degrees more than the smallest angle. The third angle is three times the smallest angle. How many degrees are there in each angle if the sum of the angles of the triangle is 180 degrees?
10. One acute angle of a right triangle is 5 times as large as the other. How many degrees are there in each angle? Hint: Either of the angles, not the right angle, is called an acute angle in the right triangle.
11. One acute angle of a right triangle is 12 degrees less than the other. How many degrees are in each angle?
12. A square has the same area as a rectangle whose length is 8 feet more than a side of the square and whose width is 4 feet less. Find the side of the square.