

Name:

Date:

Period:

Word Problem Template:

DEFINE your Variable(s)



Write your Equation then solve it



Statement/Sentence



Example: Find two positive consecutive odd integers whose product is 323. Find the integers.

DEFINE your Variable(s)

Let $x = 1^{\text{st}}$ COI
Let $x + 2 = 2^{\text{nd}}$ COI

Write your Equation then solve it

$x(x + 2) = 323$
 $x = 17$ | $x = -19$ reject

Statement/Sentence

The consecutive odd integers are 17 & 19.

Use the template to set up , solve, and answer the questions in **complete sentences**.

1. How many feet of fencing are needed to enclose a square garden that has an area of 36 square feet?
2. The length of a rectangular flower bed is 3 times the width. The area of the bed is 108 square meters. What are the dimensions of the bed?
3. The product of two consecutive negative integers is 1122. What are the numbers?
4. The height of a triangular metal plate is 6 times the measure of the base. The area of the plate is 120 square inches. In simplest radical form, what is the measure of the base?
5. Mr. Jackson had a rectangular shaped garden where the length was 2 m less than twice the width. If the area of the garden was 420 square meters, find the dimensions of the garden.
6. The square of a POSITIVE number is 6 more than 5 times the number. Find the number.

For questions 7 & 8: The ratio of the areas of two similar triangles is equal to the **square** of the ratio of their corresponding sides.

$$\left(\frac{\text{Area of triangle 1}}{\text{Area of triangle 2}}\right) = \left(\frac{\text{Side of triangle 1}}{\text{Side of triangle 2}}\right)^2$$

7. The areas of two similar polygons are in the ratio 36:1. The length of a side of the smaller polygon is 2 cm. Find the length of the corresponding side of the larger polygon.
8. Two similar triangles have areas of 40 and 32. The length of a side of the smaller triangle is 8. Find the length of the corresponding side of the larger triangle.