

**WORD PROBLEM PRACTICE**

**Directions:** These problems are related to the section in your book dealing with linear systems of two equations in two variables. **Set each one up using TWO equations** and solve using either substitution or elimination.

1) The sum of two numbers is 18, and the difference of those numbers is 4. What are the two numbers?

Choosing and labeling the variables:

Two equation set up:

Solving:

2) A board 20 feet long is cut into two pieces such that the length of one piece is two-thirds of the length of the other piece. Find the length of the shorter piece of board.

Choosing and labeling the variables:

Two equation set up:

Solving:

3) If the smaller of two consecutive odd integers is doubled, the result is 7 more than the larger of the two integers. Find the two integers.

Choosing and labeling the variables:

Two equation set up:

Solving:

4) One of two supplementary angles is  $4^\circ$  more than one-third of the other angle. Find the measure of each of the angles.

Choosing and labeling the variables:

Two equation set up:

Solving:

5) The measure of an angle is  $30^\circ$  more than 3 times its complement. Find the measures of these two complementary angles.

Choosing and labeling the variables:

Two equation set up:

Solving:

6) The width of a certain rectangle is 1 inch more than one-fourth of its length. The perimeter of the rectangle is 42 inches. Find the length and the width of the triangle.

Choosing and labeling the variables:

Two equation set up:

Solving:

7) The sum of the present ages of Areceli and her mother is 64 years. In eight years Areceli will be three-fifths as old as her mother at that time. Find the present ages of Areceli and her mother.

Choosing and labeling the variables:

Two equation set up:

Solving:

8) The smaller of two acute angles in a triangle measures 3 less than half the angle measure of the larger of these angles. Find the degree measure of both acute angles.

Choosing and labeling the variables:

Two equation set up:

Solving: