Linear Equations Word Problems Worksheets

1. A number increased by 5 and divided by 2 is equal to 75. What is the number?

2. The sum of thirteen and twice a number is seven less than six times a number. What is the number?

3. The width of a rectangle is 7 less than twice the length. If the perimeter of the rectangle is 43.6 inches, what is the area of the rectangle?

Linear Equations Word Problems Worksheets

1. A number increased by 5 and divided by 2 is equal to 75. What is the number?

Let x be the number.

$$\frac{x+5}{2} = 75$$
$$x + 5 = 150$$
$$x = 145$$

The number is 145.

2. The sum of thirteen and twice a number is seven less than six times a number. What is the number?

Let x be the number.

$$13 + 2x = 6x - 7$$
$$20 + 2x = 6x$$
$$20 = 4x$$
$$5 = x$$

The number is 5.

3. The width of a rectangle is 7 less than twice the length. If the perimeter of the rectangle is 43.6 inches, what is the area of the rectangle?

Let x represent the length of the rectangle.

$$2x + 2(2x - 7) = 43.6$$
$$2x + 4x - 14 = 43.6$$
$$6x - 14 = 43.6$$
$$6x = 57.6$$
$$x = \frac{57.6}{6}$$
$$x = 9.6$$

The length of the rectangle is 9.6 inches, and the width is 12.2 inches, so the area is 117.12 in^2.

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