

Algebra 2
Worksheet C1

Write and solve an equation for each application problem.

1. Three times the difference of a number and six is fifteen.
2. Two less than five times a number is the same as three times the number increased by ten.
3. The quotient of a number and four decreased by three is the same as twice a number increased by one.
4. Twice the sum of a number and five is eight.
5. The sum of three consecutive integers is 129. Find the middle number.
6. The sum of three consecutive even integers is -36. Find the largest number.
7. The sum of two consecutive odd numbers is 56. Find both numbers.
8. The sum of three consecutive odd numbers is 399. Find the smallest number.

Complete each equation.

9. The area of a rectangle is 40 in^2 . The length of the rectangle is five in and the width is six inches more than a number. Find the dimensions of the rectangle.

$$A = l \cdot w$$

$$A = \underline{\hspace{2cm}} \text{ in}^2$$

$$l = \underline{\hspace{2cm}}$$

$$w = \underline{\hspace{2cm}}$$

13. Travis has agreed to walk his neighbor's dog for \$2 each trip plus \$0.28 per mile. If his neighbor paid him \$15.44 for walking his dog on Sunday, how many miles did he walk?

$$\text{Fee} = \underline{\hspace{2cm}}$$

$$\text{Sunday} = \underline{\hspace{2cm}}$$

10. The area of a triangle is 48 cm^2 . The base of the triangle is four cm less than a number and the height is 8 cm. Find the base of the triangle.

$$A = \frac{1}{2} b \cdot h$$

$$A = \underline{\hspace{2cm}} \text{ cm}^2$$

$$b = \underline{\hspace{2cm}}$$

$$h = \underline{\hspace{2cm}}$$

14. The perimeter of a rectangle is 26 m. The length is seven less than three times the width. Find the dimensions of the rectangle.

$$P = 2l + 2w$$

$$P = \underline{\hspace{2cm}}$$

$$l = \underline{\hspace{2cm}}$$

11. The area of a trapezoid is 148 ft^2 . Find the height of the trapezoid if the bases are 15 feet and 22 feet.

$$A = \frac{1}{2} \cdot h(b_1 + b_2)$$

$$A = \underline{\hspace{2cm}} \text{ ft}^2$$

$$h = \underline{\hspace{2cm}}$$

$$b_1 = \underline{\hspace{2cm}}$$

$$b_2 = \underline{\hspace{2cm}}$$

15. The perimeter of a triangle is 19 cm. One side of a triangle is twice the smallest side. The third side of the triangle is one less than largest side of the triangle. Find the lengths of each side of the triangle.

$$P = a + b + c$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$c = \underline{\hspace{2cm}}$$

12. Jenny is starting to babysit on the weekends. She charges \$25 per day for 1 child then an extra \$5 for each additional child. If the Smith's paid Jenny \$60 this past Saturday, how many kids did she babysit for the day?

$$\text{Fee} = \underline{\hspace{2cm}}$$

$$\text{Saturday} = \underline{\hspace{2cm}}$$