Name: Date: Period:

Solve the following equations for the indicated letter.

1. If $2m + 2p = 16$, **p** equals:

2. If $bx - 2 = K$, then **x** equals:

3. If $3ax + b = c$, then **x** equals:

4. If $c = 2m + d$, then **m** is equal to:

5. If $x = 2a - b^2$, then **a** equals:

6. If $x + y = 9x + y$, then **x** is equal to:

7. If $9x + 2a = 3a - 4x$, then **x** equals:

8. If $7x + 2a = 3x + 5a$, then **x** is equivalent to:

9. If $2ax - 5x = 2$, then **x** is equivalent to:

10. If $a + ar = b + r$, the value of **a** in terms of b and r can be expressed as:

11. If $\frac{x}{4} - \frac{a}{b} = 0$, $b \neq 0$, then **x** is equal to:

12. Solve the equation $3x + 4y = 15$ for **y**:

13. If the formula for the perimeter of a rectangle is $P = 2l + 2w$, then **w** can be expressed as:

14. If $P = 2L + 2W$, then **L** equals:

15. In the equation $A = p + prt$, **t** is equivalent to:

16. Sean knows the length of the base, b, and the area, A, of a triangular window in his bedroom. Use the formula for the area of a triangle to find the height, **h**, of this window?

17. The formula for the volume of a right circular cylinder is $V = \pi r^2 h$. The value of **h** can be expressed as:

18. The formula for potential energy is $P = mgh$, where P is potential energy, m is mass, g is gravity, and h is height. Which expression can be used to represent **g**?

19. Shoe sizes and foot length are related by the formula $S = 3F - 24$, where S represents the shoe size and F represents the length of the foot, in inches.

    a. Solve the formula for **F**.

    b. To the nearest tenth of an inch, how long is the foot of a person who wears a size $10\frac{1}{2}$ shoe?