Algebra Worksheet 2.5

Solve for the indicated variable. Circle your final answer.

1. Solve for n: $2m + 7n = 10$
2. Solve for b: $8ab = c$

3. Solve for a: $P = a + b + c$
4. Solve for t: $D = rt + 5$

5. Solve for h: $A = \frac{1}{2}h(b_1 + b_2)$
6. Solve for h: $V = -\pi r^2 h$

7. Solve for P: $C = P(1 + 0.01r)$
8. Solve for w: $S = r - w$

9. Solve for v: $h = -16t^2 + vt$
10. Solve for r: $C = 2\pi r$

11. Solve for r: $w = -$
12. Solve for C: $P = R - C$

Solve for y.

13. $6x - y = -7$
14. $-x + 4y = -9$
15. $y - 4 = \frac{1}{8}(x + 3)$
16. $\frac{1}{2}(x - y) = 8$
17. The Celsius and Fahrenheit temperatures are related by the equation $\quad \quad \quad$ .

A) Solve for $C$.

B) The overnight low was $41^\circ F$. What is this in degrees Celsius?

18. The value of an investment at simple interest is given by the formula $A = P + Prt$. $A$ is the final value after $t$ years at the interest rate $r$ (as a decimal) if the initial amount $P$ is invested.

A) Solve for $t$.

B) How long must $200$ be invested at $8\%$ interest to reach a value of $248$?

19. The formula $c = 5p + 215$ relates $c$, the total cost in dollars of hosting a birthday party at a skating rink, to $p$, the number of people attending.

A) Solve the formula for $p$.

B) If Allie’s parents are willing to spend $300$ for a party, how many people can attend?