

Name: \_\_\_\_\_

#### 4.2 Specified Variable

Solve for the indicated variable.

1.  $a^2 + b^2 = c^2$ ; solve for  $b$

6.  $F = \frac{Gm_1m_2}{r^2}$ ; solve for  $r$

2.  $S = 2hl + 2hw + 2lw$ ; solve for  $h$

7.  $F = \left(\frac{9}{5}\right)C + 32$  for  $C$

3.  $A = 6s^2$ ; solve for  $s$

8.  $(x + 1)^2 + (y - 3)^2 = r^2$ ; Solve fore  $y$

4.  $A = A_0(1 - r)^2$ ; solve for  $r$

9.  $S = 2hl + 2hw + 2lw$ ; solve for  $w$

5.  $A = \left(\frac{1}{2}\right)h(B + b)$  for  $b$

10.  $S = 2hl + 2hw + 2lw$ ; solve for  $l$

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11.  $C = 2\pi r$  for  $r$

**Simplify.**

16.  $\sqrt{72x}$

12.  $V = \pi r^2 h$  for  $h$

17.  $\sqrt{256v}$

13.  $V = \frac{1}{3}Bh$  for  $B$

18.  $3\sqrt{12} - 2\sqrt{27} - 2\sqrt{18}$

14.  $y = mx + b$  for  $x$

19.  $2\sqrt{2}(-3\sqrt{2} + 5)$

15.  $A = P(1 + rt)$  for  $t$

20.  $-\frac{2x^4}{x^3}$