

Practice 4-4

..... Example Exercises

Example 1

The formula $A = \frac{1}{2}bh$ gives the area A for a triangle.

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| 1. Solve this formula for h . | 2. Find h if $b = 4$ in., $A = 16$ in. ² . |
| 3. Solve this formula for b . | 4. Find b if $h = 5$ in., $A = 50$ in. ² . |
| 5. Find h if $b = 10$ in., $A = 80$ in. ² . | 6. Find b if $h = 10$ in., $A = 75$ in. ² . |

Example 2

The formula $P = 2(l + w)$ gives the perimeter P of a rectangle for length l and width w .

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| 7. Solve this formula for l . | 8. Find l if $P = 64$ cm, $w = 6$ cm. |
| 9. Solve this formula for w . | 10. Find w if $P = 36$ in., $l = 7$ in. |
| 11. Find w if $P = 150$ cm, $l = 20$ cm. | 12. Find l if $P = 100$ in., $w = 25$ in. |

Example 3

The formula $R = \frac{V}{I}$ gives electrical resistance R , in ohms, for a voltage V , in volts, and a current I , in amps.

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| 13. Solve this formula for I . | 14. Find I if $V = 120$ volts and $R = 24$ ohms. |
| 15. Solve this formula for V . | 16. Find V if $I = 2.5$ amps and $R = 96$ ohms. |
| 17. Find I if $V = 24$ volts and $R = 48$ ohms. | 18. Find V if $I = 15$ amps and $R = 120$ ohms. |

Example 4

Solve each equation for the given variable.

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| 19. $2x + y = 6; y$ | 20. $5a - b = 7; b$ | 21. $d + 2e = f; d$ |
| 22. $12 + 3y = z; y$ | 23. $r = \frac{d}{t}; t$ | 24. $de = f; e$ |
| 25. $\frac{x}{3} = \frac{y}{6}; y$ | 26. $y = mx + b; m$ | 27. $3(a + b) = 7; a$ |
| 28. $3d + g = 9; g$ | 29. $V = lwh; w$ | 30. $n + 5 = p; n$ |
| 31. $xy + z = 5; y$ | 32. $A = \frac{1}{2}bh; h$ | 33. $4(m - 2n) = p; m$ |