

# Solving Literal Equations Worksheet

Solve each equation for the specified variable.

①  $A = 2\pi rh + 2\pi r^2$ , for  $\pi$

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②  $\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$ , for  $T_1$

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③  $\frac{1}{f} = \frac{1}{a} + \frac{1}{b}$ , for  $f$

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④  $Q = \frac{11}{5}(P - 15)$ , for  $P$

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⑤  $E = mc^2$ , for  $c$

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⑥  $A = P(1 + rt)$ , for  $t$

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⑦  $h = vt - 16t^2$ , for  $v$

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⑧  $m = \frac{y_2 - y_1}{x_2 - x_1}$ , for  $y_2$

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# Solving Literal Equations Worksheet

## Answers

①  $A = 2\pi rh + 2\pi r^2$ , for  $\pi$

$$\pi = \frac{A}{2r(h + r)}$$

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②  $\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$ , for  $T_1$

$$T_1 = \frac{T_2 P_1 V_1}{P_2 V_2}$$

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③  $\frac{1}{f} = \frac{1}{a} + \frac{1}{b}$ , for  $f$

$$f = \frac{ab}{b + a}$$

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④  $Q = \frac{11}{5}(P - 15)$ , for  $P$

$$P = \frac{5}{11}Q + 15$$

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⑤  $E = mc^2$ , for  $c$

$$c = \sqrt{\frac{E}{M}}$$

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⑥  $A = P(1 + rt)$ , for  $t$

$$t = \frac{A - P}{Pr}$$

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⑦  $h = vt - 16t^2$ , for  $v$

$$v = \frac{h + 16t^2}{t}$$

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⑧  $m = \frac{y_2 - y_1}{x_2 - x_1}$ , for  $y_2$

$$y_2 = mx_2 - mx_1 + y_1$$

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