

## EXTRA PRACTICE — Exercises

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### Unit VI – Second Degree Relations and Higher - Algebraic Fractions Part B – Solving Open Sentences **Lesson 4 – Literal Equations**

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Solve each of the following literal equations for the placeholder indicated.

$$1. S = \frac{H}{m(t_1 - t_2)} \text{ for } t_1$$

$$2. \frac{E}{e} = \frac{R+r}{r} \text{ for } e$$

$$3. \frac{1}{A} = \frac{1}{a_1} + \frac{1}{a_2} \text{ for } a_1$$

$$4. P = \frac{A}{1+r} \text{ for } r$$

$$5. \frac{x_1}{x_2} = \frac{f_1}{f_2} \text{ for } f_2$$

$$6. t = \frac{ab}{a+b} \text{ for } a$$

$$7. S = \frac{(x_1 + x_2)t}{2} \text{ for } x_1$$

$$8. Q = \frac{3}{x} - \frac{n}{y} \text{ for } y$$

$$9. B = \frac{2Aa + Mn}{2A + M} \text{ for } M$$

$$10. R = \frac{x+y}{xy} \text{ for } x$$

## EXTRA PRACTICE — Answer Key

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Solve each of the following literal equations for the placeholder indicated.

$$1. t_1 = \frac{H + Smt_2}{Sm} \text{ or } \frac{H}{Sm} + t_2$$

$$2. \frac{rE}{R+r} = e$$

$$3. a_1 = \frac{Aa_2}{a_2 - A}$$

$$4. r = \frac{A-P}{P} \text{ or } \frac{A}{P} - 1$$

$$5. f_2 = \frac{x_2 f_1}{x_1}$$

$$6. \frac{bt}{b-t} = a$$

$$7. \frac{2S - x_2 t}{t} = x_1 \text{ or } \frac{2S}{t} - x_2$$

$$8. y = \frac{-nx}{Qx-3} \text{ or } \frac{nx}{-Qx+3} \text{ or } \frac{nx}{3-Qx}$$

$$9. \frac{2A(B-a)}{n-B} = M$$

$$10. x = \frac{y}{Ry-1}$$