

9. Solve: $8\left(\frac{1}{4}x - \frac{5}{8}\right) = \frac{3}{8}$

a) $x = 4$

b) $x = 2$

c) $x = \frac{1}{2}$

d) $x = \frac{1}{4}$

$$2x - 5 = 3$$

$$2x = 8$$

$$x = 4$$

10. Solve: $8(x - 2) - 5(x + 4) = 20 + x$

a) $x = 9$

b) $x = 28$

c) $x = -8$

d) $x = -18$

$$8x - 16 - 5x - 20 = 20 + x$$

$$3x - 36 = 20 + x$$

$$2x - 36 = 20$$

$$2x = 56 \quad x = 28$$

11. Solve for m : $F = \frac{mv^2}{r}$

a) $m = \frac{F}{rv^2}$

b) $m = Frv^2$

c) $m = \frac{Fv^2}{r}$

d) $m = \frac{Fr}{v^2}$

$$\frac{rF}{v^2} = \frac{mv^2}{v^2}$$

12. Solve P : $A = P + Prt$

a) $P = A - rt$

b) $P = \frac{A - rt}{2}$

c) $P = \frac{A}{1 + rt}$

d) $P = \frac{A}{2rt}$

$$\frac{A}{1 + rt} = \frac{P(1 + rt)}{1 + rt}$$

13. Solve: $\frac{6}{x-5} = \frac{4}{x}$

a) $x = -5$

b) $x = -6$

c) $x = -10$

d) $x = 2$

$$6x = 4x - 20$$

$$2x = -20$$

$$x = -10$$

14. Solve: $2|x-3| = 5$

a) $x = 4, 0$

b) $x = \frac{1}{2}, \frac{11}{2}$

c) $x = 0, \frac{11}{2}$

d) $x = -\frac{1}{2}, -\frac{11}{2}$

$$|x-3| = \frac{5}{2}$$

$$\begin{array}{r} x-3 = \frac{5}{2} \\ +3 \quad +3 \\ \hline x = \frac{11}{2} \end{array}$$

$$\begin{array}{r} x-3 = -\frac{5}{2} \\ +3 \quad +3 \\ \hline x = \frac{1}{2} \end{array}$$

15. Solve: $3 - \frac{x}{x-4} = \frac{4}{4-x}$

a) $x = 4$ b) $x = -4$ c) $x = 1$

(Handwritten notes: $(x-4)$ above the first fraction, (-1) above the second fraction, and $(x-4)$ above the right-hand side. The second fraction and the right-hand side are crossed out.)

d) No solution

$$3(x-4) - x = -4$$

$$3x - 12 - x = -4$$

$$2x = 8$$

~~$$x = 4$$~~