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

a) x = 4   b) x = 2   c) x= $\dfrac{1}{2}$ d) x = $\dfrac{1}{4}$

$$2x - 5 = 3$$
$$2x = 8$$
$$x = 4$$

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

a) x = 9   b) x = 28   c) x = -8   d) x = -18

$$8x - 16 - 5x - 20 = 20 + x$$
$$3x - 36 = 20 + x$$
$$2x - 36 = 20$$
$$2x = 56 \qquad x = 28$$

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

a) $m = \dfrac{F}{rv^2}$ b) $m = Frv^2$ c) $m = \dfrac{Fv^2}{r}$ d) $m = \dfrac{Fr}{v^2}$

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

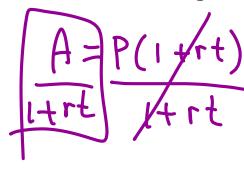
12. Solve P: $A = P + Prt$

a) $P = A - rt$ b) $P = \dfrac{A - rt}{2}$ c) $P = \dfrac{A}{1 + rt}$ d) $P = \dfrac{A}{2rt}$

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

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

a) x = -5   b) x = -6   c) x = -10   d) x = 2

$$6X = 4X - 20$$

$$2X = -20 \qquad X = -10$$

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

a) x = 4, 0   b) $x = \dfrac{1}{2}, \dfrac{11}{2}$ c) $x = 0, \dfrac{11}{2}$ d) $x = -\dfrac{1}{2}, -\dfrac{11}{2}$

$$\left|X-3\right| = \frac{5}{2}$$

$$X - 3 = \frac{5}{2}$$
$$+3 \qquad +3$$
$$X = \frac{11}{2}$$

$$X - 3 = -\frac{5}{2}$$
$$+3 \qquad +3$$
$$X = \frac{1}{2}$$

15. Solve: $\left(3-\dfrac{x}{x-4}\right)\left(\dfrac{4}{4-x}\right)$ $(x-4)$ (-1) $(x-4)$

a) x = 4   b) x = -4   c) x = 1   d) No solution

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

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

$$2x = 8$$

$$\cancel{x = 4}$$