

Solve for x:

$$-8x + 4(1+5x) = -6x - 14$$

$$\frac{2}{3}x + 8 = 36$$

Simplify using exponent rules:

$$\frac{(6^7)(6^5)}{6^4}$$

$$(8^9)^{-3}$$

Solve the proportions:

$$\frac{7}{n} = \frac{8}{7}$$

$$\frac{4}{m-8} = \frac{8}{2}$$

$$\frac{5}{r-9} = \frac{8}{r+5}$$

$$-8x + 4(1 + 5x) = -6x - 14$$

$$-8x + 4 + 20x = -6x - 14$$

$$12x + 4 = -6x - 14$$

$$+ 6x \qquad + 6x$$

$$18x + 4 = -14$$

$$-4 \quad -4$$

$$18x = -18$$

$$x = -1$$

$$\frac{2}{3}x + 8 = 36$$

$-8 \quad -8$

$$\frac{2}{3} \cdot \frac{3}{2} \cdot \frac{2}{3}x = \frac{28}{1} \cdot \frac{3}{2}$$

$$x = 42$$

$$\frac{(6^7 \times 6^5)}{6^4}$$

$$6^8$$



$$\begin{aligned} &6^{7+5} \\ &\frac{6^4}{6^{12}} \\ &\frac{6^4}{6^{12-4}} \end{aligned}$$

$$(8^9)^{-3}$$

$$8^{-27}$$

$$\frac{1}{8^{27}}$$

$$\frac{7}{n} \times \frac{8}{7}$$

$$\frac{49}{8} = \frac{8n}{8}$$

$$n = 6\frac{1}{8}$$

$$\frac{4}{m-8} \neq \frac{8}{2}$$

$$8 = 8(m-8)$$

$$8 = 8m - 64$$
$$+ 64 \qquad \qquad + 64$$

$$72 = 8m$$

$$9 = m$$

$$\frac{5}{r-9} = \frac{8}{r+5}$$

$$8(r-9) = 5(r+5)$$

$$8r - 72 = 5r + 25$$

$$3r - 72 = 25$$

$$3r = 97$$

$$r = 32\frac{1}{3}$$