

Equations Review - worksheet

Solve:

a) $2x - 5 = 7$

$2x = 12$

$x = 6$

b) $3(x - 4) = 5x - 2$

$3x - 12 = 5x - 2$

$-2x = 10$

$x = -5$

c) $4 - 5(x + 3) = 2(x - 6)$

$4 - 5x - 15 = 2x - 12$

$-7x = -1$

$x = \frac{1}{7}$

d) $(x + 1)(x - 2) = 2x + (x + 3)(x - 4)$

$x^2 - 2x + x - 2 = 2x + x^2 - 4x + 3x - 12$

$x^2 - x - 2 = 2x + x^2 - 4x + 3x - 12$

$-2x = -10$

$x = 5$

e) $\frac{2}{3}(x - 5) = x + 4$

$\frac{2}{3}x - \frac{10}{3} = x + 4$

$2x - 10 = 3x + 12$

$-22 = x$

f) $\frac{2x-6}{5} = \frac{3x+5}{4}$

$4(2x-6) = 5(3x+5)$

$8x - 24 = 15x + 25$

$-7x = 49$

$x = -7$

g) $\frac{1}{5}x - \frac{2}{3} = \frac{3}{5}x + \frac{5}{3}$

$3x - 10 = 9x + 25$

$-6x = 35$

$x = -\frac{35}{6}$

h) $\frac{3}{4}(x - 5) = \frac{1}{3}(x + 2)$

$\frac{3}{4}x - \frac{15}{4} = \frac{1}{3}x + \frac{2}{3}$

$9x - 45 = 4x + 8$

$5x = 53$

$x = \frac{53}{5}$