

Solve for X



Name: Key

Let's Practice our Solve for X with the Distribution Property

1.  $2(x+2) = 10$

$$2x + 4 = 10$$

-4   -4

$$1 \frac{2x}{2} = \frac{6}{2} \quad (x = 3)$$

2.  $5(x-1) = 11$

$$5x - 5 = 11$$

+5   +5

$$\frac{5x}{5} = \frac{16}{5}$$

$$(x = \frac{16}{5} = 3\frac{1}{5} \text{ or } 3.2)$$

3.  $3(2y+6) = 5$

$$6y + 18 = 5$$

-18   -18

$$\frac{6y}{6} = \frac{-13}{6}$$

$$(y = \frac{-13}{6} = -2\frac{1}{6} \text{ or } -2.1\bar{6})$$

4.  $6(2x+3) = 2$

$$12x + 18 = 2$$

-18   -18

$$\frac{12x}{12} = \frac{-16}{12}$$

$$(x = \frac{-16}{12} = -\frac{4}{3} = -1\frac{1}{3} \text{ or } -1.\bar{3})$$

5.  $4(w+6) = -9$

$$4w + 24 = -9$$

-24   -24

$$\frac{4w}{4} = \frac{-33}{4}$$

$$(w = \frac{-33}{4} = -8\frac{1}{4} \text{ or } -8.25)$$

6.  $6(3w+2) = 12$

$$18w + 12 = 12$$

-12   -12

$$\frac{18w}{18} = \frac{0}{18}$$

$$(w = \frac{0}{18} = 0)$$

7.  $7(f+2) = 4$

$$7f + 14 = 4$$

-14   -14

$$\frac{7f}{7} = \frac{-10}{7}$$

$$(f = \frac{-10}{7} = -1\frac{3}{7} \text{ or } -1.4)$$

8.  $10(r+2) = 4$

$$10r + 20 = 4$$

-20   -20

$$\frac{10r}{10} = \frac{-16}{10}$$

$$(r = \frac{-16}{10} = -\frac{8}{5} = -1.6 \text{ or } -1.6)$$

9.  $6(m-1) = -2$

$$6m - 6 = -2$$

+6   +6

$$\frac{6m}{6} = \frac{4}{6}$$

$$(m = \frac{4}{6} = \frac{2}{3} = .\bar{6})$$

10.  $5(2m-2) = -14$

$$10m - 10 = -14$$

+10   +10

$$\frac{10m}{10} = \frac{-4}{10}$$

$$(m = \frac{-4}{10} = -\frac{2}{5} = -.4)$$

11.  $2(3m-2) = 10$

$$6m - 4 = 10$$

+4   +4

$$\frac{6m}{6} = \frac{14}{6}$$

$$(m = \frac{14}{6} = 2\frac{1}{3} = 2.\bar{3} \text{ or } 2.\bar{3})$$

12.  $8(n-2) = 5$

$$8n - 16 = 5$$

+16   +16

$$\frac{8n}{8} = \frac{21}{8}$$

$$(n = \frac{21}{8} = 2\frac{5}{8} \text{ or } 2.625)$$

13.  $4(m-8) = 3$

$$4m - 32 = 3$$

+32   +32

$$\frac{4m}{4} = \frac{35}{4}$$

$$(m = \frac{35}{4} = 8\frac{3}{4} \text{ or } 8.75)$$

14.  $6(n+4) = 8$

$$6n + 24 = 8$$

-24   -24

$$\frac{6n}{6} = \frac{-16}{6}$$

$$(n = \frac{-16}{6} = -2\frac{4}{6} = -2\frac{2}{3} = -2)$$

Solve for X - EXPERT

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

$$\frac{5x}{2} - \frac{2}{2} = \frac{3}{4}$$

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

$$\frac{5x}{2} = \frac{3}{4} + \frac{4}{4}$$

$$\frac{5x}{2} = \frac{7}{4}$$

$$2. \frac{3}{4}(2m - \frac{1}{2}) = 4$$

$$\frac{6m}{4} - \frac{3}{8} = 4$$

$$\frac{6m}{4} - \frac{3}{8} + \frac{3}{8} = 4 + \frac{3}{8}$$

$$\frac{6}{4}m = \frac{32}{8} + \frac{3}{8}$$

$$\frac{4}{6} \frac{6}{4} m = \frac{35}{8} \left(\frac{4}{6}\right)$$

$$3. (4m)(3m) = 48$$

$$\frac{12m^2}{12} = \frac{48}{12}$$

$$m^2 = 4$$

$$m = 2$$

$$4. (-3y)(-2y) = 6$$

$$\frac{6y^2}{6} = \frac{6}{6}$$

$$y^2 = 1$$

$$y = 1$$

$$\left(\frac{2}{5}\right) \frac{5}{2} x = \frac{7}{4} \left(\frac{2}{5}\right)$$

$$x = \frac{14}{20} = \frac{7}{10}$$

or .7

$$5. 2(4x-10) = -4$$

$$8x - 20 = -4$$

$$+20 \quad +20$$

$$\frac{8x}{8} = \frac{16}{8}$$

$$x = 2$$

$$6. (-3)(5x-9) = 1$$

$$-15x + 27 = 1$$

$$-27 \quad -27$$

$$\frac{-15x}{-15} = \frac{-26}{-15}$$

$$x = \frac{26}{15} = 1\frac{11}{15}$$

or 1.73

$$7. (-8x)(4) + -4 = 10$$

$$-32x + -4 = 10$$

$$+4 \quad +4$$

$$\frac{-32x}{-32} = \frac{14}{-32}$$

$$x = \frac{14}{32} = \frac{-7}{16} \text{ or } -.44$$

$$8. \frac{2}{3} \left(\frac{1}{2}x - 4\right) = -3$$

$$\frac{2x}{6} - \frac{8}{3} = -3$$

$$\frac{2x}{6} - \frac{8}{3} + \frac{8}{3} = -3 + \frac{8}{3}$$

$$\frac{2x}{6} = -\frac{9}{3} + \frac{8}{3}$$

$$\left(\frac{6}{2}\right) \frac{2}{6} x = -\frac{1}{3} \left(\frac{6}{2}\right)$$

$$x = \frac{-6}{6} = -1$$