

1) Solve $3|4x + 7| \geq 22$

$$x \geq \frac{1}{12} \quad x \leq -\frac{43}{12}$$

2) Simplify $\frac{4}{3}x - \frac{9}{5}c + \frac{5}{6}x + \frac{11}{9}c$

$$\frac{34}{18}x - \frac{26}{45}c$$

3) Simplify $-\frac{1}{6}(-36y+138)+10y$

$$16y - 23$$

4) Solve for y: $5y + \frac{9}{4} + 6y$

$$y = \frac{39}{28}$$

5) Solve for x and graph: $17 > -10x - 3 > -43$

$$-2 < x < 4$$

6) Solve for y: $-7y - \frac{3}{4} = -2(4y - \frac{7}{10})$

$$y = \frac{43}{28}$$

7) Solve for k: $\frac{5}{4} + 3k \leq \frac{5}{11}$

$$k \leq \frac{-35}{132}$$

8) Solve for x: $-5x + 7 < 24$

$$x > \frac{17}{5}$$

9) Solve for y: $2(3y - 15) < -17$

$$y < \frac{13}{6}$$

10) Solve for x: $|3x + 7| + 6 = 23$

$$x = \frac{10}{3} \quad x = -8$$

11) Solve for n: $11|6n + 7| + 12 = 10$

No solution

12) Solve for t: $|t - \frac{7}{12}| = \frac{3}{5}$

$$x = \left(\frac{71}{60}, \frac{-13}{60} \right)$$

13) What are the solutions to the following equation? $|6b+7|-7=38$

$$b = \frac{19}{3}, \frac{-27}{3}$$

14) Simplify $2(3.6a-2.5b)-6(3.4a-3.3b)$

15) Solve for t. $\frac{1}{5}(90t+75)=36$

$$18t + 15 = 36$$

$$t = \frac{21}{18} = \frac{7}{6}$$

16) Solve for x $\frac{3y+rx}{a} = 5$

$$x = \frac{5a-3y}{r}$$

17) Solve for x and graph the solution of $-39 \leq 2x - 11 \leq 11$

$$-14 \leq x \leq 11$$

18) Solve and graph the solution to $3|2x-6|+4 > 13$

$$x > 7.5 \quad x < -1.5$$

19) Solve for x and graph the solutions $|3x-5|-10 > 7$

$$x > \frac{22}{3} \quad x < -4$$

20) Solve for x and graph the solutions $12x+4 \leq 38$ or $-4x-12 < -40$

$$x \leq \frac{17}{3} \quad x > 7$$

21) Solve $8|5b+\frac{6}{7}|-6=12$.

$$b = \left\{ \frac{39}{140}, \frac{-87}{140} \right\}$$