

Name : _____

Score : _____ Date : _____

Multi-Step Inequalities with Fractions

Solve and graph the solution.

① $\frac{3}{5}(2d - 5) \leq 4(7 - \frac{1}{5}d)$

② $\frac{6d}{5} - 3 + 3 \leq 28 - \frac{4d}{5} + 3$

③ $\frac{2x - 3}{4} + 9 \geq 3 + \frac{4x}{3}$

④ $\frac{3x + 1}{x - 1} - 2 \geq 0$

⑤ $2(\frac{2x + 2}{4} - \frac{3x - 3}{6}) < 2x - 4$

⑥ $-9 > -\frac{1}{3}x + 6$

⑦ $\frac{3x + 4}{3} - \frac{15x}{3} < 6$

⑧ $\frac{3}{5}x - 3 \geq \frac{3}{10}x - 9$

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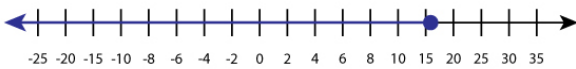
Score : _____ Date : _____

Multi-Step Inequalities with Fractions

Answers

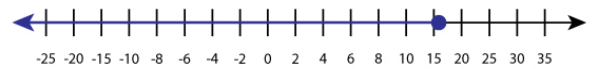
① $\frac{3}{5}(2d - 5) \leq 4(7 - \frac{1}{5}d)$

$$d \leq \frac{31}{2}$$



② $\frac{6d}{5} - 3 + 3 \leq 28 - \frac{4d}{5} + 3$

$$d \leq \frac{31}{2}$$



③ $\frac{2x - 3}{4} + 9 \geq 3 + \frac{4x}{3}$

$$x \leq \frac{63}{10}$$



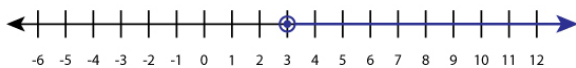
④ $\frac{3x + 1}{x - 1} - 2 \geq 0$

$$x \leq -3 \text{ or } x > 1$$



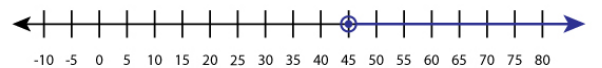
⑤ $2(\frac{2x + 2}{4} - \frac{3x - 3}{6}) < 2x - 4$

$$x > 3$$



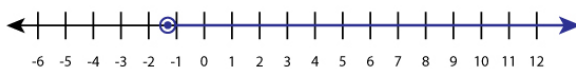
⑥ $-9 > -\frac{1}{3}x + 6$

$$x > 45$$



⑦ $\frac{3x + 4}{3} - \frac{15x}{3} < 6$

$$x > -\frac{7}{6}$$



⑧ $\frac{3}{5}x - 3 \geq \frac{3}{10}x - 9$

$$x \geq -20$$

