

Lesson 6.5 Assignment

Extra Practice Wkst (B)

Key

* Multiply every term by the LCM

Solve the inequality. Show ALL your work!

1. $-\frac{13}{16}x + \frac{3}{8} < \frac{11}{16}$ (16)

$$-13x + 6 < 11$$

$$-13x < 5$$

$$x > -\frac{5}{13}$$

2. $\frac{5}{8}x + \frac{7}{24} > \frac{13}{24}$ (24)

$$15x + 7 > 13$$

$$\frac{15x}{15} > \frac{6}{15}$$

$$x > \frac{2}{5}$$

3. $\frac{1}{3} \geq \frac{2}{9} - \frac{5}{9}x$ (9)

$$-\frac{3}{2} \geq 2 - 5x$$

$$\frac{1}{5} \geq -\frac{5}{5}x$$

$$-\frac{1}{5} \leq x$$

4. $\frac{11}{48} - \frac{1}{2}x > \frac{5}{12}$ (48)

$$11 - 24x > 20$$

$$-24x > 9$$

$$x < -\frac{3}{8}$$

5. $\frac{2}{5} \leq \frac{3}{5}x + \frac{1}{4}$ (20)

$$8 \leq 12x + 5$$

$$\frac{3}{12} \leq \frac{12x}{12}$$

$$\frac{1}{4} \leq x$$

6. $\frac{1}{3} < -\frac{2}{3}x - \frac{1}{4}$ (12)

$$4 < -8x - 3$$

$$\frac{7}{8} < -\frac{8x}{8}$$

$$-\frac{7}{8} > x$$

7. $\frac{1}{3} \geq \frac{5}{6}x + \frac{7}{12}$ (12)

$$4 \geq 10x + 7$$

$$-3 \geq 10x$$

$$-\frac{3}{10} \geq x$$

8. $-\frac{4}{5}x - \frac{1}{2} < \frac{3}{10}$ (10)

$$-8x - 5 < 3$$

$$-\frac{8x}{-8} < \frac{8}{-8}$$

$$x > -1$$

9. $\frac{5}{8}x + \frac{1}{2} \leq \frac{13}{48}$ (48)

$$30x + 24 \leq 13$$

$$\frac{30x}{30} \leq -\frac{11}{30}$$

$$x \leq -\frac{11}{30}$$

10. $\frac{2}{9} - \frac{5}{9}x < \frac{1}{6}$ (18)

$$4 - 10x < 3$$

$$-10x < -\frac{1}{10}$$

$$x > \frac{1}{10}$$

11. $\frac{2}{5} \geq -\frac{1}{6} - \frac{2}{3}x$ (30)

$$12 \geq -5 - 20x$$

$$\frac{17}{-20} \geq \frac{-20x}{-20}$$

$$-\frac{17}{20} \leq x$$

12. $\frac{5}{8} < \frac{2}{5} - \frac{7}{10}x$ (40)

$$25 < 16 - 28x$$

$$\frac{9}{-28} < \frac{-28x}{-28}$$

$$-\frac{9}{28} > x$$