



Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

1 **Divide** the rational numbers and simplify to lowest terms:

$$\frac{6}{7} \div \frac{9}{x} = \square$$

- A  $\frac{54}{7x}$
- B  $\frac{63}{6x}$
- C  $\frac{7x}{54}$
- D  $\frac{2x}{21}$

3 Solve the equation for  $x$ :

$$x - \frac{3}{12} = \frac{7}{12}$$

- A  $\frac{1}{3}$
- C  $-\frac{1}{3}$

2 **Divide** the rational numbers and simplify to lowest terms:

$$\frac{4x}{5} \div \frac{8x}{9} = \square$$

- A  $\frac{9}{10}$
- B  $\frac{32x}{45}$
- C  $\frac{36x}{45x}$
- D  $\frac{9x}{10}$

4 Solve the equation for  $x$ :

$$x + \frac{3}{7} = \frac{-5}{7}$$

- A  $1\frac{1}{7}$
- C  $-\frac{2}{7}$

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## PREVIEW

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- A  $x \leq -6$
- B  $x \geq -6$
- C  $x \leq -5.2$
- D  $x \geq -5.2$

- A  $x < \frac{1}{3}$
- B  $x > \frac{1}{3}$
- C  $x < 1\frac{1}{3}$
- D  $x > 1\frac{1}{3}$

9

Solve the inequality for  $x$ :

$$\frac{-3}{4x} > 12$$

- A  $x > -9$
- B  $x < -9$
- C  $x > -16$
- D  $x < -16$

10

Solve the inequality for  $x$ :

$$\frac{x}{7} \leq -14$$

- A  $x \leq -98$
- B  $x \leq -91$
- C  $x \geq -98$
- D  $x \geq -91$



## ANSWER KEY

Divide the rational numbers and simplify to lowest terms:

$$\frac{6}{7} \div \frac{9}{x} = \square$$

A  $\frac{54}{7x}$

C  $\frac{7x}{54}$

B  $\frac{63}{6x}$

D  $\frac{2x}{21}$

(d)

Divide the rational numbers and simplify to lowest terms:

$$\frac{4x}{5} \div \frac{8x}{9} = \square$$

A  $\frac{9}{10}$

C  $\frac{36x}{45x}$

B  $\frac{32x}{45}$

D  $\frac{9x}{10}$

(a)

Solve the equation for  $x$ :

$$x - \frac{3}{12} = \frac{7}{12}$$

A  $\frac{1}{3}$

C  $-\frac{1}{3}$

B  $5$

D  $-5$

(b)

Solve the equation for  $x$ :

$$x + \frac{3}{7} = \frac{-5}{7}$$

A  $1\frac{1}{7}$

C  $-\frac{2}{7}$

B  $-2$

D  $-1$

(d)



## PREVIEW

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- A  $x \geq -6$
- B  $x \geq -6$
- C  $x \leq -5.2$
- D  $x \geq -5.2$

- A  $x < \frac{1}{3}$
- B  $x > \frac{1}{3}$
- C  $x < 1\frac{1}{3}$
- D  $x > 1\frac{1}{3}$

Solve the inequality for  $x$ :

$$\frac{-3}{4x} > 12$$

- A  $x > -9$
- B  $x < -9$
- C  $x > -16$
- D  $x < -16$

(d)

Solve the inequality for  $x$ :

$$\frac{x}{7} \leq -14$$

- A  $x \leq -98$
- B  $x \leq -91$
- C  $x \geq -98$
- D  $x \geq -91$

(a)