

Name: ..... Class: .....

## Identify Equivalent ratios

a. Are the ratios  $12 : 14$  and  $48 : 56$  equivalent?

b. Determine whether the following ratios are equivalent.  
 $3 : 2$  and  $15 : 10$

c. Are the ratios  $8 : 7$  and  $2 : 14$  equivalent?

d. Are the ratios  $22 : 24$  and  $58 : 66$  equivalent?

e. Determine whether the following ratios are equivalent.  
 $7 : 6$  and  $20 : 15$

f. Are the ratios  $16 : 14$  and  $4 : 28$  equivalent?

Name: ..... Class: .....

Identify Equivalent ratios

a. Are the ratios 12 : 14 and 48 : 56 equivalent?

Write the ratios as fractions.

$$12 : 14 = \frac{12}{14} \quad 48 : 56 = \frac{48}{56}$$

Find the LCD to compare the fractions.

multiples of 14: 14, 28, 42, 56, ...

multiples of 56: 56, 112, ...

LCD of 14 and 56 = 56.

Write  $\frac{12}{14}$  with a denominator of 56.

$$\frac{12}{14} = \frac{12 \times 4}{14 \times 4} = \frac{48}{56}$$

So, since  $\frac{12}{14}$  and  $\frac{48}{56}$  are equal.

Therefore, the ratios are equivalent.

b. Determine whether the following ratios are equivalent.  
3 : 2 and 15 : 10

$$3 : 2 = \frac{3}{2} \quad 15 : 10 = \frac{15}{10}$$

The LCD of 2 and 10 is 10.

Write  $\frac{3}{2}$  with a denominator of 10.

$$\frac{3}{2} = \frac{3 \times 5}{2 \times 5} = \frac{15}{10}$$

So, since  $\frac{15}{10}$  and  $\frac{15}{10}$  are equal

Therefore, the ratios are equivalent.

c. Are the ratios 8 : 7 and 2 : 14 equivalent?

$$8 : 7 = \frac{8}{7} \quad 2 : 14 = \frac{2}{14}$$

The LCD of 7 and 14 is 14.

Write  $\frac{8}{7}$  with a denominator of 14.

$$\frac{8}{7} = \frac{8 \times 2}{7 \times 2} = \frac{16}{14}$$

$$\frac{2}{14} = \frac{2 \times 1}{14 \times 1} = \frac{2}{14}$$

So, since  $\frac{16}{14}$  and  $\frac{2}{14}$  are not equal.

Therefore, the ratios are not equivalent.