

Section 2.4 Focus Exercises

1. Use cross multiplication to determine whether the pair of fractions is equivalent or not.

a) $\frac{18}{12} \stackrel{?}{=} \frac{3}{2}$

b) $\frac{15}{6} \stackrel{?}{=} \frac{5}{2}$

c) $\frac{4}{12} \stackrel{?}{=} \frac{5}{10}$

d) $\frac{8}{10} \stackrel{?}{=} \frac{6}{8}$

e) $\frac{12}{30} \stackrel{?}{=} \frac{8}{15}$

f) $\frac{18}{24} \stackrel{?}{=} \frac{6}{9}$

g) $\frac{20}{30} \stackrel{?}{=} \frac{8}{12}$

h) $\frac{25}{15} \stackrel{?}{=} \frac{10}{6}$

2. Solve for the variable in each proportion.

a) $\frac{2}{3} = \frac{x}{6}$

b) $\frac{5}{10} = \frac{3}{c}$

c) $\frac{x}{6} = \frac{21}{14}$

d) $\frac{15}{p} = \frac{30}{4}$

e) $\frac{\frac{1}{2}}{x} = \frac{1}{8}$

f) $\frac{\frac{1}{2}}{x} = \frac{1}{\frac{4}{9}}$

g) $\frac{x+1}{5} = \frac{3}{15}$

h) $\frac{x+3}{12} = \frac{7}{6}$

$$\text{i) } \frac{11}{7} = \frac{4-3y}{14}$$

$$\text{j) } \frac{x+6}{5} = \frac{x-3}{2}$$

3. Solve each proportion. Write any improper fraction *answer* as a mixed number.

$$\text{a) } \frac{3}{14} = \frac{x}{21}$$

$$\text{b) } \frac{1}{p} = \frac{10}{8}$$

$$\text{c) } \frac{5\frac{1}{2}}{m} = \frac{11}{6}$$

$$\text{d) } \frac{x}{3\frac{1}{8}} = \frac{8}{5}$$

$$\text{e) } \frac{5x+2}{30} = \frac{x}{3}$$

$$\text{f) } \frac{4}{x} = \frac{16}{2x+7}$$