

2.4 Complex Fractions

Name _____

Simplify.

1.
$$\frac{1 + \frac{3}{5}}{2 + \frac{1}{5}}$$

2.
$$\frac{2 + \frac{3}{8}}{1 + \frac{1}{3}}$$

3.
$$\frac{\frac{1}{a} + \frac{1}{b}}{\frac{1}{ab}}$$

4.
$$\frac{\frac{3}{x} + \frac{3}{y}}{\frac{6}{x^2y^2}}$$

5.
$$\frac{\frac{1}{y} + 7}{\frac{1}{y} - 5}$$

6.
$$\frac{x - \frac{1}{x}}{x + \frac{1}{x}}$$

Answers: 1. $\frac{8}{11}$; 3. $a + b$; 5. $\frac{1 + 7y}{1 - 5y}$

Simplify.

7.
$$\frac{\frac{a^2 - b^2}{ab}}{\frac{a - b}{b}}$$

8.
$$\frac{\frac{x^2 - 4}{x + 2}}{\frac{3x + 6}{x + 2}}$$

9.
$$\frac{\frac{1}{x^2} - \frac{1}{y^2}}{\frac{1}{x} - \frac{1}{y}}$$

10.
$$\frac{\frac{a}{b} + \frac{1}{a}}{\frac{b}{a} + \frac{1}{a}}$$

Answers: 7. $\frac{a+b}{a}$; 9. $\frac{x+y}{xy}$