

SIMPLIFYING FRACTIONS WITH VARIABLES (WORKSHEET)

Simplify the given fractions.

$$\textcircled{1} \frac{7}{4y} + \frac{2}{5xy}$$

$$\textcircled{6} \frac{a}{7} + \frac{a}{5}$$

$$\textcircled{2} \frac{5}{x+1} + \frac{4}{x-3}$$

$$\textcircled{7} \frac{y}{y+1} - \frac{y}{y+3}$$

$$\textcircled{3} \frac{2}{y+1} + \frac{3}{y-3}$$

$$\textcircled{8} \frac{4}{x+1} - \frac{5}{x+3}$$

$$\textcircled{4} \frac{x+y}{2} + \frac{2x}{5}$$

$$\textcircled{9} \frac{3}{2x} - \frac{y+1}{3xy}$$

$$\textcircled{5} \frac{\frac{x+1}{4y}}{\frac{x+4}{8y}}$$

$$\textcircled{10} \frac{\frac{m+1}{2} - \frac{m-1}{3}}{\frac{m+1}{5}}$$

SIMPLIFYING FRACTIONS WITH VARIABLES (WORKSHEET)

Answers

$$\textcircled{1} \frac{7}{4y} + \frac{2}{5xy}$$

$$= \frac{35x + 8}{20xy}$$

$$\textcircled{6} \frac{a}{7} + \frac{a}{5}$$

$$= \frac{12a}{35}$$

$$\textcircled{2} \frac{5}{x+1} + \frac{4}{x-3}$$

$$= \frac{9x - 11}{(x+1)(x-3)}$$

$$\textcircled{7} \frac{y}{y+1} - \frac{y}{y+3}$$

$$= \frac{2y}{(y+1)(y+3)}$$

$$\textcircled{3} \frac{2}{y+1} + \frac{3}{y-3}$$

$$= \frac{5y - 3}{(y+1)(y-3)}$$

$$\textcircled{8} \frac{4}{x+1} - \frac{5}{x+3}$$

$$= \frac{-x + 7}{(x+1)(x+3)}$$

$$\textcircled{4} \frac{x+y}{2} + \frac{2x}{5}$$

$$= \frac{9x + 5y}{10}$$

$$\textcircled{9} \frac{3}{2x} - \frac{y+1}{3xy}$$

$$= \frac{7xy - 2x}{6x^2y}$$

$$\textcircled{5} \frac{\frac{x+1}{4y}}{\frac{x+4}{8y}}$$

$$= \frac{2(x+1)}{x+4}$$

$$\textcircled{10} \frac{\frac{m+1}{2} - \frac{m-1}{3}}{\frac{m+1}{5}}$$

$$= \frac{5(m+5)}{6(m+1)}$$