

PRACTICE Quiz 5.5 & 5.6**Simplify each and state the excluded values.**

1) $\frac{6a^3}{8} \div 3a^4$

2) $\frac{(7n+2)(5n-7)}{5n-7} \cdot \frac{(n-8)(2n-5)}{(5-2n)(2+7n)}$

3) $\frac{1}{n-2} \cdot \frac{7n^2+31n-20}{7n-4}$

4) $\frac{6x^2-21x+18}{5x^2-45x} \cdot \frac{5x^2+10x}{6x^2-21x+18}$

Simplify each expression.

5) $\frac{\frac{x^2}{2}}{\frac{2}{x}}$

6) $\frac{\frac{3}{n}}{\frac{m^2}{3n}}$

$$7) \frac{\frac{9}{u} - \frac{2u}{3}}{\frac{2}{3u}}$$

$$8) \frac{25}{\frac{b}{a} + \frac{5}{b}}$$

$$9) \frac{\frac{a}{3} + \frac{4}{3}}{\frac{a^2}{5} - \frac{1}{a}}$$

$$10) \frac{\frac{x}{5} + \frac{2}{x}}{\frac{y}{4} + \frac{5}{x}}$$

$$11) \frac{x+5}{\frac{y-2}{x-4} + \frac{x+5}{x-4}}$$

$$12) \frac{\frac{2}{y-5} - \frac{x-1}{y-5}}{\frac{4}{y-5} + \frac{y+2}{x-1}}$$

PRACTICE Quiz 5.5 & 5.6

Simplify each and state the excluded values.

1) $\frac{6a^3}{8} \div 3a^4$

$\frac{1}{4a}; \{0\}$

2) $\frac{(7n+2)(5n-7)}{5n-7} \cdot \frac{(n-8)(2n-5)}{(5-2n)(2+7n)}$

$-n+8; \left\{\frac{7}{5}, \frac{5}{2}, -\frac{2}{7}\right\}$

3) $\frac{1}{n-2} \cdot \frac{7n^2+31n-20}{7n-4}$

$\frac{n+5}{n-2}; \left\{2, \frac{4}{7}\right\}$

4) $\frac{6x^2-21x+18}{5x^2-45x} \cdot \frac{5x^2+10x}{6x^2-21x+18}$

$\frac{x+2}{x-9}; \left\{0, 9, 2, \frac{3}{2}\right\}$

Simplify each expression.

5) $\frac{\frac{x^2}{2}}{\frac{2}{x}}$

$\frac{x^3}{4}$

6) $\frac{\frac{3}{n}}{\frac{m^2}{3n}}$

$\frac{9}{m^2}$

$$7) \frac{\frac{9}{u} - \frac{2u}{3}}{\frac{2}{3u}}$$

$$\frac{27 - 2u^2}{2}$$

$$8) \frac{25}{\frac{b}{a} + \frac{5}{b}}$$

$$\frac{25ab}{b^2 + 5a}$$

$$9) \frac{\frac{a}{3} + \frac{4}{3}}{\frac{a^2}{5} - \frac{1}{a}}$$

$$\frac{5a^2 + 20a}{3a^3 - 15}$$

$$10) \frac{\frac{x}{5} + \frac{2}{x}}{\frac{y}{4} + \frac{5}{x}}$$

$$\frac{4x^2 + 40}{5yx + 100}$$

$$11) \frac{\frac{x+5}{y-2} + \frac{x+5}{x-4}}{\frac{x-4}{x-4} + \frac{x+5}{x-4}}$$

$$\frac{x^2 + x - 20}{y + 3 + x}$$

$$12) \frac{\frac{2}{y-5} - \frac{x-1}{y-5}}{\frac{4}{y-5} + \frac{y+2}{x-1}}$$

$$\frac{4x - 3 - x^2}{4x - 14 + y^2 - 3y}$$