

5.2 Practice Worksheet

Date _____ Period _____

Simplify each expression.

1) $\frac{2n^2 - 7n + 6}{2n^2 - 7n + 6}$

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

3) $\frac{15v - 9}{9v - 15}$

4) $\frac{8x - 20}{8x + 4}$

5) $\frac{12k + 8}{20k - 8}$

6) $\frac{3a^2 + 11a + 6}{3a - 3}$

7) $\frac{3x}{5x - 8} + \frac{4x}{x + 2}$

8) $\frac{2n}{5} - \frac{n + 3}{n - 3}$

9) $\frac{5}{m - 1} - \frac{2m}{m + 3}$

10) $\frac{4r}{r - 1} - \frac{4r}{r + 3}$

11) $\frac{3}{4x} + \frac{4x}{14x - 8}$

12) $\frac{3}{2p^2 + 2p} - \frac{p + 6}{3p}$

$$13) \frac{\frac{3}{2a} - \frac{3}{a^2}}{\frac{1}{4}}$$

$$14) \frac{\frac{a}{3}}{\frac{25}{a^2} - \frac{25}{3a}}$$

$$15) \frac{\frac{x}{6}}{\frac{1}{12} - \frac{6}{x^2}}$$

$$16) \frac{\frac{3}{5}}{\frac{25}{3} - \frac{x}{3}}$$

$$17) \frac{5}{\frac{x}{x-1} + \frac{x^2-x}{25}}$$

$$18) \frac{\frac{36}{m+4}}{\frac{16}{m+4} + \frac{8}{3m+12}}$$

$$19) \frac{x^2+7x-8}{2x^3+16x^2} \div \frac{x-1}{6x^2}$$

$$20) \frac{x^2-x-56}{6} \cdot \frac{6}{x^2+13x+42}$$

$$21) \frac{v^2-2v-8}{v+2} \cdot \frac{5}{v-4}$$

$$22) \frac{n^2+12n+35}{n+7} \div \frac{8n}{n-4}$$

$$23) \frac{5}{3k} \cdot \frac{3k^2+24k}{k+8}$$

$$24) \frac{3p^2+21p}{p+7} \cdot \frac{8}{3p}$$

Answers to 5.2 Practice Worksheet

$$1) 1; \left\{ \frac{3}{2}, 2 \right\}$$

$$5) \frac{3k+2}{5k-2}; \left\{ \frac{2}{5} \right\}$$

$$9) \frac{15+7m-2m^2}{(m+3)(m-1)}$$

$$13) \frac{6a-12}{a^2}$$

$$17) \frac{125x-125}{26x+x^3-2x^2}$$

$$21) 5$$

$$2) \frac{3b-1}{2b+5}; \left\{ -\frac{5}{2}, 1 \right\}$$

$$6) \frac{(3a+2)(a+3)}{3(a-1)}; \{1\}$$

$$10) \frac{16r}{(r+3)(r-1)}$$

$$14) \frac{a^3}{75-25a}$$

$$18) \frac{27}{14}$$

$$22) \frac{(n-4)(n+5)}{8n}$$

$$3) \frac{5v-3}{3v-5}; \left\{ \frac{5}{3} \right\}$$

$$7) \frac{23x^2-26x}{(5x-8)(x+2)}$$

$$11) \frac{21x-12+8x^2}{4x(7x-4)}$$

$$15) \frac{2x^3}{x^2-72}$$

$$19) 3$$

$$23) 5$$

$$4) \frac{2x-5}{2x+1}; \left\{ -\frac{1}{2} \right\}$$

$$8) \frac{2n^2-11n-15}{5(n-3)}$$

$$12) \frac{-3-2p^2-14p}{6p(p+1)}$$

$$16) \frac{9}{125-5x}$$

$$20) \frac{x-8}{x+6}$$

$$24) 8$$