

Section P.5 WS 2

Simplify each expression.

1) $\frac{r+6}{r^2+13r+42} \cdot \frac{3r^2}{r-2}$

2) $\frac{b-6}{7b+63} \cdot \frac{7b-21}{b-6}$

3) $\frac{1}{2b+2} \div \frac{10}{2b^2+18b+16}$

4) $\frac{1}{p+8} \div \frac{2p-9}{2p^2+5p-63}$

5) $\frac{6}{2k-2} + \frac{k+1}{2k-2}$

6) $\frac{x-3}{20x+12} - \frac{x-1}{20x+12}$

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

8) $\frac{2}{a+6} + \frac{5}{a+5}$

9) $\frac{2}{3x-6} - \frac{2}{x+1}$

10) $\frac{3}{2n+4} + \frac{2}{n+4}$

11) $\frac{3}{6n} - \frac{4n-6}{n^2+9n+18}$

12) $\frac{6}{2x} - \frac{5x-4}{3x^2+3x-18}$

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Date _____ Period _____

Simplify each expression.

$$1) \frac{r+6}{r^2+13r+42} \cdot \frac{3r^2}{r-2} \quad \frac{3r^2}{(r+7)(r-2)}$$

$$2) \frac{b-6}{7b+63} \cdot \frac{7b-21}{b-6} \quad \frac{b-3}{b+9}$$

$$3) \frac{1}{2b+2} \div \frac{10}{2b^2+18b+16} \quad \frac{b+8}{10}$$

$$4) \frac{1}{p+8} \div \frac{2p-9}{2p^2+5p-63} \quad \frac{p+7}{p+8}$$

$$5) \frac{6}{2k-2} + \frac{k+1}{2k-2}$$

$$\frac{7+k}{2k-2}$$

$$6) \frac{x-3}{20x+12} - \frac{x-1}{20x+12}$$

$$-\frac{1}{10x+6}$$

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

$$\frac{5x^2+19x-6}{3(x+5)(x+1)}$$

$$8) \frac{2}{a+6} + \frac{5}{a+5}$$

$$\frac{7a+40}{(a+6)(a+5)}$$

$$9) \frac{2}{3x-6} - \frac{2}{x+1}$$

$$\frac{-4x+14}{3(x-2)(x+1)}$$

$$10) \frac{3}{2n+4} + \frac{2}{n+4}$$

$$\frac{7n+20}{2(n+4)(n+2)}$$

$$11) \frac{3}{6n} - \frac{4n-6}{n^2+9n+18}$$

$$\frac{-7n^2+21n+18}{2n(n+6)(n+3)}$$

$$12) \frac{6}{2x} - \frac{5x-4}{3x^2+3x-18}$$

$$\frac{4x^2+13x-54}{3x(x-2)(x+3)}$$