

## 5C-5F Review

Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify each expression: (5C)**

1)  $\frac{x^2 + 11x + 24}{5x + 40}$

2)  $\frac{40a^2}{40a^2 + 64a}$

**Multiply or divide: (5C)**

3)  $(k + 3) \cdot \frac{k + 2}{k^2 - 7k - 30}$

4)  $\frac{1}{m - 1} \div \frac{2m - 2}{16m - 16}$

**Add or subtract: (5D)**

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

6)  $\frac{m + 2n}{6m^2} + \frac{5n}{4m^3}$

$$7) \frac{3r+4}{3r-9} + \frac{5}{3}$$

$$8) \frac{n-4}{n^2-36} + \frac{2n}{n^2-36}$$

**Simplify each expression: (5E)**

$$9) \frac{\frac{x-1}{3} - \frac{3}{5x-5}}{\frac{15}{x-1}}$$

$$10) \frac{\frac{25}{4a} - \frac{20}{a}}{\frac{5}{a^2} - \frac{25}{2}}$$

**Solve each equation. Remember to check for extraneous solutions. (5F)**

$$11) \frac{v-5}{2v} = \frac{1}{4v} - \frac{1}{4}$$

$$12) \frac{1}{n} = \frac{1}{3n} - \frac{2}{n^2+3n}$$

$$13) \frac{1}{x^2-x} = \frac{x}{3x-3} + \frac{x+3}{3x^2-3x}$$

$$14) \frac{1}{2n^2} + \frac{1}{n} = \frac{5}{3n}$$

## Answers to 5C-5F Review

$$1) \frac{x+3}{5}$$

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

$$9) \frac{5x^2 - 10x - 4}{225}$$

$$13) \{-1\}$$

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

$$6) \frac{2m^2 + 4mn + 15n}{12m^3}$$

$$10) -\frac{11a}{4 - 10a^2}$$

$$14) \left\{\frac{3}{4}\right\}$$

$$3) \frac{k+2}{k-10}$$

$$7) \frac{8r-11}{3(r-3)}$$

$$11) \left\{\frac{11}{3}\right\}$$

$$4) \frac{8}{m-1}$$

$$8) \frac{3n-4}{n^2-36}$$

$$12) \{-6\}$$