

# Review of Target 3

Name \_\_\_\_\_

Date \_\_\_\_\_ Block \_\_\_\_\_

1-12: Simplify each expression.

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

2.  $\frac{8y^2(y^6)^3}{4y^{24}}$

3.  $\frac{3a^2 - 24a}{3a^2 + 12a}$

4.  $\frac{5r^2}{r^2 - 4} \cdot \frac{r + 2}{10r^5}$

5.  $\frac{24g^3}{5f^2} \cdot \frac{10(gf)^3}{8g^5f}$

6.  $\frac{3x^2}{x + 2} \div \frac{3x}{x^2 - 4}$

7.  $\frac{q^2 + 2q}{6q} \div \frac{q^2 - 4}{3q^2}$

8.  $\frac{t^2 + 19t + 84}{4t - 4} \cdot \frac{2t - 2}{t^2 + 9t + 14}$

9.  $\frac{16a^2 + 40a + 25}{3a^2 - 10a - 8} \div \frac{4a + 5}{a^2 - 8a + 16}$

10.  $\frac{\frac{c^2y}{2d^2}}{\frac{-c^6}{5d}}$

11.  $\frac{\frac{a^2 - b^2}{4a}}{\frac{a + b}{2a}}$

12.  $\frac{\frac{x - 4}{x^2 + 6x + 9}}{\frac{x^2 - 2x - 8}{3 + x}}$

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**13-15: Find the LCM of each set of polynomials.**

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13.  $12c, 6c^2d$

14.  $18a^3bc^2, 24b^2c^2$

15.  $x^2 - 3x - 4, x + 1$

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**16-24: Simplify each expression.**

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16.  $\frac{3}{8p^2r} + \frac{5}{4p^2r}$

17.  $\frac{2}{a+2} - \frac{3}{2a}$

18.  $\frac{1}{x^2 + 2x + 1} + \frac{x}{x + 1}$

19.  $\frac{4z}{z-4} + \frac{z+4}{z+1}$

20.  $\frac{7}{4gh} + \frac{3}{4h^2}$

21.  $\frac{n}{n-3} + \frac{2n+2}{n^2-2n-3}$

22.  $\frac{3}{y^2 + y - 12} - \frac{2}{y^2 + 6y + 8}$

23.  $\frac{k}{k-n} - \frac{k}{n-k}$

24.  $\frac{2c-7}{3} + 4$