

NAME:

# MULTIPLYING/DIVIDING RATIONAL EXPRESSIONS HW DAY 2

1. $\frac{b^2 - 81}{b} \div (b + 9)$	2. $\frac{a + 5}{3a + 6} \cdot \frac{3a^2 + 6a}{a^2 + 2a - 15}$
3. $\frac{9d^4}{d - 3} \div \frac{d}{d - 3}$	4. $\frac{v^2 - 4}{5v + 10} \cdot \frac{v + 2}{v - 2}$
5. $\frac{y^2 + 5y - 14}{9y} \div \frac{y^2 - 8y + 12}{3y}$	6. $\frac{r^2 + 2r + 1}{r - 1} \cdot \frac{3r - 3}{r + 1}$
7. $\frac{6x + 6}{x - 1} \div \frac{x^2 + 3x + 2}{2x - 2}$	8. $\frac{b^2 - 2b - 24}{b^2 - 36} \cdot \frac{b^2 + 5b - 6}{b^2 + 2b - 8}$
10. $\frac{9x^2 + 6x + 1}{x + 5} \div \frac{3x + 1}{x^2 + 5x}$	9. $\frac{x^2 + 7x + 12}{x^2 + 8x + 16} \cdot \frac{x + 4}{x + 3}$
	11. $\frac{3y^2 - 7y + 4}{12y^2 - 4y} \cdot \frac{3y - 1}{15y^3 - 20y^2}$

$$12. \frac{p^2 - 2p + 1}{p + 1} \div \frac{p^2 - 1}{p + 1}$$

$$13. \frac{a^2 + 7a + 12}{a^2 + 3a - 10} \div \frac{a^2 - a - 20}{a^2 - 25}$$

$$14. \frac{w^2 - 9}{2w^2 + 13w - 7} \div \frac{2w^2 + 7w + 3}{4w^2 - 1}$$

$$15. \frac{y^2 + 5y - 14}{9y} \div \frac{y^2 - 8y + 12}{3y}$$

$$16. \frac{6x + 6}{x - 1} \div \frac{x^2 + 3x + 2}{2x - 2}$$

$$17. \frac{r^2 + 6r - 27}{r^2 + 11r + 18} \div \frac{r - 3}{r^2 + r - 2}$$

$$18. \left( \frac{6r^2 - 11r + 4}{r^2 - 8r + 15} \cdot \frac{r^2 - 25}{r + 5} \right) \div (2r^2 - 7r + 3)$$

19. Write an expression in simplest form that makes the statement true:

$$\frac{k^2 + 2k - 8}{k^2 - 8k + 12} \div \boxed{\quad ? \quad} = \frac{1}{k - 4}$$