

~~WS 6~~
~~11-4~~ Review Worksheet on **11-3** to **11-6** Name _____

Simplify.

Find each quotient.

1. $\frac{18x^2}{10y^2} \cdot \frac{15y^3}{24x}$

9. $\frac{(-e)^3}{f^2} \div \frac{e^3}{f^2}$

17. $(y^2 - 3y - 2) \div (y + 7)$

2. $\frac{12a^2b}{4} \cdot \frac{4a + 8b}{20a^2b^3}$

10. $\frac{z^2 - 16}{3z} \div (z - 4)$

3. $\frac{y^2 - 9}{4} \cdot \frac{8}{y + 3}$

11. $\frac{5m}{m + 1} \div \frac{25m^2}{m^2 + 2m + 1}$

18. $(20w^2 + 39w + 18) \div (5w + 6)$

4. $\frac{2a^2 + a}{4a^2 - 1} \cdot \frac{6a - 3}{4a}$

12. $\frac{15b^2}{b^2 - c^2} \div \frac{5b}{b^2 - 25}$

19. $\frac{x^3 - 3x^2 - 6x - 20}{x - 5}$

5. $\frac{e^2 - 1}{2e - 6} \cdot \frac{e^2 - 9}{3e - 3}$

13. $\frac{z^2 - 1}{6z - 10} \div \frac{2z - 2}{9z^2 - 25}$

6. $\frac{4r + r^2}{8 + 2r} \cdot \frac{4}{2r^3}$

14. $\frac{m^2 + 2m + 1}{10m - 10} \div \frac{m + 1}{20}$

20. $\frac{6d^3 + d^2 - 2d + 17}{2d + 3}$

7. $\frac{xy}{3x - 3y} \cdot \frac{x^2 - xy}{xy}$

15. $\frac{2y - 6}{4y + 28} \div \frac{y - 3}{2y + 14}$

8. $\frac{t^2 + 6t + 9}{t^2 - 10t + 25} \cdot \frac{t^2 - t - 20}{t^2 + 7t + 12}$

16. $\frac{6a}{a - 4} \div \frac{a^2 - 7a}{a^2 - 11a + 28}$

Find each sum or difference.

$$21. \frac{r^2}{r+s} - \frac{s^2}{r+s}$$

$$24. \frac{4n^2}{2n-3} + \frac{9}{3-2n}$$

$$27. \frac{2}{x+2} + \frac{3}{(x+2)^2}$$

$$29. \frac{3}{2h^2-2h} + \frac{5}{2h-2}$$

$$22. \frac{81}{9+e} - \frac{e^2}{9+e}$$

$$25. \frac{3k}{k+h} + \frac{3h}{k+h}$$

$$23. \frac{2x+3t}{4x-2t} - \frac{t-2x}{4x-2t}$$

$$26. \frac{1}{c-d} + \frac{1}{d-c}$$

$$28. \frac{6}{5y^2-45} - \frac{8}{3-y}$$

$$30. \frac{6}{x^2-4x+5} + \frac{1}{x+1}$$

Simplify.

$$31. \frac{\frac{3}{a} + \frac{4}{b}}{\frac{4}{a} - \frac{3}{b}}$$

$$33. \frac{\frac{4}{c^2-d^2}}{\frac{2}{c+d}}$$

$$35. \frac{\frac{m}{n} + 1}{\frac{m}{n} - 1}$$

$$32. \frac{\frac{x-6}{x+2}}{x + \frac{8}{x+5}}$$

$$34. \frac{\frac{x^2-y^2}{xy}}{\frac{x+y}{y}}$$

$$36. \frac{\frac{a^2+a-12}{a^2+3a-4}}{\frac{a-3}{a^2-a}}$$