Name _____ Class _____ Date _____

Practice 2-3

Multiplying and Dividing Rational Numbers

Simplify each expression.

1. $(-2)(8)$
2. $(-6)(-9)$
3. $(-3)^4$
4. -2^5
5. $(6)(-8)$
6. $(-14)^2$
7. $2(-4)(-6)$
8. $-30 \div (-5)$
9. $\frac{-52}{-13}$
10. $(-8)(5)(-3)$
11. -7^2
12. -3^5
13. $\frac{-68}{17}$
14. $\frac{(-4)(-13)}{-26}$
15. $\frac{225}{(-3)(-5)}$

Evaluate each expression.

16. x^3 for $x = -5$
17. $s^2t \div 10$ for $s = -2$ and $t = 10$
18. $-2m + 4n^2$ for $m = -6$ and $n = -5$
19. $\frac{v}{w}$ for $v = \frac{2}{5}$ and $w = -\frac{1}{2}$
20. $-cd^2$ for $c = 2$ and $d = -4$
21. $(x + 4)^2$ for $x = -11$
22. $\left(\frac{a}{b}\right)^2 + b^3$ for $a = 24$ and $b = -6$
23. $4p^2 + 7q^3$ for $p = -3$ and $q = -2$
24. $(e + f)^4$ for $e = -3$ and $f = 7$
25. $5f^2 - z^2$ for $f = -1$ and $z = -4$

Simplify each expression.

26. $2^4 - 3^2 + 5^2$
27. $(-8)^2 - 4^3$
28. $32 \div (-7 + 5)^3$
29. $\frac{3}{4} \div \left(-\frac{3}{7}\right)$
30. $18 + 4^2 \div (-8)$
31. $26 \div [4 - (-9)]$
32. $4^3 - (2 - 5)^3$
33. $-(-4)^3$
34. $(-8)(-5)(-3)$
35. $(-3)^2 - 4^2$
36. $\frac{-45}{-15}$
37. $(-2)^6$
38. $\frac{-90}{6}$
39. $\frac{-15}{(7 - 4)}$
40. $\frac{195}{-13}$

Evaluate each expression.

41. $(a + b)^2$ for $a = 6$ and $b = -8$
42. $d^3 \div e$ for $d = -6$ and $e = -3$
43. $(m + 5n)^3$ for $m = 2$ and $n = -1$
44. $j^5 - 5k$ for $j = -4$ and $k = -1$
45. $xy + z$ for $x = -4, y = 3,$ and $z = -3$
46. $4s \div (-3t)$ for $s = -6$ and $t = -2$
47. $\frac{r^3}{s}$ for $r = -6$ and $s = -2$
48. $\frac{-h^5}{-4}$ for $h = 4$