

EXTRA PRACTICE 8
Simplifying Expressions and Order of Operations
Use after Section 1.8

Name _____

Example: Simplify.
$$\begin{aligned}\frac{2^2 - 3 \cdot 4 + 7}{5 - 2^2 \cdot 3 + 6} &= \frac{4 - 3 \cdot 4 + 7}{5 - 4 \cdot 3 + 6} \\ &= \frac{4 - 12 + 7}{5 - 12 + 6} \\ &= \frac{-1}{-1} \\ &= 1\end{aligned}$$

1. $2^3 - 3^2 =$ _____

2. $2 \cdot 3 - 4 \cdot 2 + 7 =$ _____

3. $5(-1) + 6(-2) =$ _____

4. $(-2)(3) - (-1)(7) - (-2) =$ _____

5. $3 + 2^2 - 16 \cdot 3^2 =$ _____

6. $6 + (3 - 4) - 2 =$ _____

7. $6 + 3 - (4 - 2) =$ _____

8. $3^2 - 8 \cdot 2 + 7^2 - 35 =$ _____

9. $-4(2^3) - 6 =$ _____

10. $(8 - 2)^2 =$ _____

11. $(4 - 6)^2 =$ _____

12. $4 - 6^2 =$ _____

13. $[32 \div (-4)] \div 2 =$ _____

14. $32 \div [(-4) \div 2] =$ _____

15. $\frac{4 - 3^2}{8^2 + 2} =$ _____

16. $\frac{7^2 - 8^2 + 1^3}{2^3 + 3^2 - 2^3} =$ _____

17. $\frac{2(8 + 3) - 4(7 + 2)}{5(6 - 1) - 3(8 - 6)} =$ _____

18. $\frac{3 \cdot 2(2 - 4) + 6}{4 \cdot 9 - 3(6 + 1)} =$ _____

19. $\frac{8 - 4^2 + 3 \cdot 5}{4 \cdot 2 - 3^2 + 9} =$ _____

20. $\frac{2 \cdot 3 - 4 \cdot 5 + 6}{-20 \div (-5) \div 8} =$ _____

EXTRA PRACTICE 8 (continued)
Simplifying Expressions and Order of Operations
Use after Section 1.8

21. $5 + 10 - 3^2 =$ _____

22. $6 \cdot 4 + 5^2 - 11 =$ _____

23. $7 \cdot (2 + 3) - 21 =$ _____

24. $(5 + 7) \div 2^2 =$ _____

25. $5^2 - 4^2 + 3 \cdot 2 =$ _____

26. $8 \cdot 9 - 6^2 + 4 =$ _____

27. $9^2 - (20 + 11) =$ _____

28. $(2 + 3) \cdot 10^2 + 5^2 =$ _____

29. $3 \cdot (30 + 4) - 7^2 =$ _____

30. $(1 + 5) \cdot 5 - 7 \cdot 4 =$ _____

31. $0 \cdot 15^2 \cdot (400 + 21) \div 19^2 =$ _____

32. $0 \cdot 1^2 \cdot (59 + 92) + 5 =$ _____

33. $6 \cdot (5 + 0)^2 =$ _____

34. $(7 - 7) \cdot 33^2 \div (45 + 3)^2 =$ _____

35. $49 \div 7^2 \cdot (531 + 4) =$ _____

36. $(233 + 18) \div 250 + 3 \cdot 33 =$ _____

37. $\frac{5 \cdot 30}{15} - (3 + 3) =$ _____

38. $\frac{(10 + 14) \cdot 200}{10^2} =$ _____

39. $\frac{10 \cdot (25 + 7)}{(5 + 3)^2} =$ _____

40. $\frac{25 \cdot (6 + 7) - 5^2}{(6 + 7)^2 - 19} =$ _____

41. $3 \cdot 4 \div (1 + 2) \div 5 =$ _____

42. $(9 + 6) \cdot 3 \div (24 + 6) =$ _____

43. $(1^6 + 13) \cdot 2 \div 7^2 =$ _____

44. $(8^2 - 2^2) \div 80 =$ _____