

Practice Set 1-2

1. List the following set of numbers in numerical order from lowest to highest.

$$\left\{-\sqrt{5}, 4, 3\frac{1}{2}, -1, 0, -2.6, \frac{7}{13}\right\}$$

2. List the following set of numbers in numerical order from lowest to highest.

$$\left\{-3.5, |-2|, \sqrt{5}, -1, \frac{1}{2}, 1\frac{3}{8}, -1.625\right\}$$

3. Use $<$, $>$, or $=$ to complete each of the following.

(a) $\sqrt{7} ? 3$ (b) $-5 ? -5\frac{1}{4}$ (c) $\pi ? 0.3$

4. Use $<$, $>$, or $=$ to complete each of the following.

(a) $\frac{8}{5} ? 2.3$ (b) $-3.1 ? -3.8$ (c) $4.5 ? \sqrt{15}$

Evaluate each of the following by applying the appropriate rule for basic operations with signed numbers.

5. $5 + (-3)$

6. $-6 + (-5)$

7. $60 \div 0$

8. $-567 \div 0$

9. $|6 - 8|$

10. $-|-2 - 10|$

11. $-1\frac{1}{3} + \frac{7}{8}$

12. $\frac{3}{4} - 2\frac{4}{5}$

13. $-(-2) + 10$

14. $7 - (-2) + 6$

15. $-\frac{8}{9} + \frac{4}{21}$

16. $-\frac{5}{8} \div \frac{15}{24}$

Evaluate each of the following expressions, being careful to follow the order of operations.

17. $7 \cdot 3 - 2 \cdot 13$

18. $(-3)(5) - (-8)(2)$

19. $\frac{15}{[-16 - (-11)]}$

20. $\frac{27}{(-24 + 21)}$

21. $8 - (-6)(4 - 7)$

22. $40 + (-2)(8 - 3)$

23. $\frac{2(-6 + 6)}{23 - 97}$

24. $\frac{2(5) - 10}{-7 - (-2)}$

25. $(-8)^2 - 7(8) + 5$

26. $(-3)^3 - 5(-2) + 3$

27. $\frac{2^2 + 4^2}{5^2 - 3^2}$

28. $\frac{12^2 - 10^2}{5^2 + 1^2}$

29. $\frac{3(-5 + 1)}{12(3) + (-5 + 2)(-3 - 1)}$

30. $\frac{5(-8 + 3)}{13(-2) + (-6 - 1)(-4 + 1)}$

31. $\frac{5}{8} - 5\left(\frac{1}{8}\right)$

32. $\frac{5}{6} - 3\left(\frac{1}{6}\right)$

33. $1.25 + \frac{6.5}{0.5} + (0.25)^2$

34. $2.5 + \frac{7.5}{0.3} + (0.5)^2$

35. $\frac{3^3 - 2^3}{-4(-3 + 1)}$

36. $\frac{2^3 - 4^3}{-8(-3 + 2)}$

37. $-4[(-2)(6) - 7]$

38. $-6[(7)(-2) - 3]$

39. $(3 - 8)(-2) - 10$

40. $-20 - (-1)(-7 - 11)$