

Exercises For Section 1.1

Simplify each of the following expressions.

1. $-9-8$

2. $3-8$

3. $-4+10$

4. $-9-3$

5. $-1+0$

6. $-2+8$

7. $-10-5$

8. $-3+3$

9. $-7+4$

10. $-6-4$

11. $5+6$

12. $3-17$

13. $-9-8$

14. $-11+4$

15. $6-1$

16. $-5-4-2$

17. $-7+3-6$

18. $8-10-7$

19. $16-11+3$

20. $14+6-30$

21. $3-10-7+2$

22. $-11+4-2+1$

23. $53-43-33$

24. $-12-11-10$

25. $-6+3-2+77$

26. $241-132-10$

27. $-1995+2007$

28. $367-841+44$

29. $-99+54-71$

30. $2-103-40$

31. $(-7)(-6)$

32. $(-11)(6)$

33. $(10)(-13)$

34. $(4)(-9)$

35. $(-8)(-7)$

36. $(-5)(-2)(-1)$

37. $(7)(-3)(3)$

38. $(2)(-6)(-3)$

39. $(-1)(-2)(-11)$

40. $(-7)(-6)(2)$

41. $-(-14)$

42. $-(12)$

43. $+(-3)$

44. $+(22)$

45. $-(-19)$

46. $-(-3)(-5)$

47. $+(-7)(-3)$

48. $-(-4)(-2)(-2)$

49. $+(-5)(9)(3)$

50. $-(-4)(5)(-8)$

51. $\frac{30}{-6}$

52. $\frac{-45}{-9}$

53. $\frac{-56}{7}$

54. $\frac{-100}{25}$

55. $\frac{55}{-11}$

56. $\frac{-6}{12}$

57. $\frac{14}{-21}$

58. $\frac{-8}{-10}$

59. $\frac{-50}{30}$

60. $\frac{16}{-24}$

Digging Deeper

61. The first row of the table below shows the daily high temperatures during a five-day period in Leask. Penny was asked to determine the average daily high temperature for the five days. She guessed that the average would be -10°C . She then determined by how much each of the daily highs differ from her guess and recorded these differences in row 2 of the chart. What is the sum of the numbers in row 2? What is the average of the numbers in row 2? What, then, was the average daily high temperature for the five-day period?

	Day 1	Day 2	Day 3	Day 4	Day 5
The Daily High	-13°	-11°	-8°	-6°	-10°
Differences	-3°	-1°	2°	4°	0°





Written Exercises

Evaluate each of the following expressions showing your work step by step.

1. $-(3+2)-(4+6)$

14. $-2-3(4-5)-5(-2-1)$

27. $(-5)^2-3(-5)-9$

2. $-(6-7)-(3-1)$

15. $(5)(-4)+(-6)(3)$

28. $(9)^2-3(-9)-9$

3. $(4-4)-(8+5)$

16. $(-3)(-10)-8(4)$

29. $(-6)^2-8(-6)-11$

4. $-(2-10)-(1-6)$

17. $(-8)(-5)-(-4)(-9)$

30. $-6^2-8(6)-11$

5. $(5-7)-(1-4)-(8-2)$

18. $-(-7)(3)-9(-9)$

31. $5^3-2(5)^2+5(5)-7$

6. $(1-6)-(3-5)+(4-7)$

19. $(-10)^2(8)-(-50)(4)$

32. $(-3)^3-2(-3)^2+5(-3)-7$

7. $(9-5)+(-4+1)-(-2-8)$

20. $(-2)^3(-5)-(3)^2(-4)$

33. $(-4)^2(10)-4(-10)^2+(-4)(-10)$

8. $-2(-6+8)+3(-5+7)$

21. $(2)^3-(-3)^3$

34. $[6-3(-4)]\div(-3)$

9. $2(6-8)-3(5-7)$

22. $3(-5)^2+(-4)(25)$

35. $[8(-3)+3(-4)]\div[2(-3)]$

10. $-2(1-2-3)+2(4-3-2)$

23. $\frac{12}{-6}-\left(\frac{-8}{4}\right)$

36. $[64-5(1+4)]\div(-8-5)$

11. $-2(-2-3-4)-(1-3-2)$

24. $\frac{18}{-9}+\left(\frac{-21}{7}\right)-\left(\frac{15}{-3}\right)$

37. $[2(9-2)]+[5(6-3)+4(4-6)]$

12. $8+(4-9)-3-(7-2)$

25. $\frac{44-(-11)}{-3+(-2)}$

38. $[36-4(3-5)]\div[-7-(-3)]$

13. $7-(5-1)-2-(6-4)$

26. $\frac{-10-(-4)}{-5-(-2)}$

39. $-1-2\{-3[-4-5(-6-(-7))]\}$



Calculator Exercises

Use your calculator to evaluate each of the following expressions.

1. $(-53)^2(-184)$

6. $(-101)^2-5(-101)-1377$

2. $-32(178-201)-48(-556+487)$

7. $741-(-984)\div(-164)(-6)-33(1159)$

3. $-14^2(-15)(-16)$

8. $47-25\{63-17[-33(-108+96)]\}$

4. $\frac{(15-27)^3(-12)^2}{36}$

9. $\frac{[-612-(-504)]^3}{[-1125-(-1113)]^2}$

5. $\frac{-215-(-883)}{88-(-79)}$

10. $\frac{135200}{-52}-\left(\frac{-6075}{135}\right)^3-\left(\frac{6480}{-54}\right)^2$