

1.3 Exercises



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- Note how the exercises are keyed to the examples and the examples are keyed to the exercises. If you get stuck on an exercise study the corresponding example.
- The keys to success are desire and discipline. You must want success and you must discipline yourself to do what it takes to get success.

Reading and Writing After reading this section write out the answers to these questions. Use complete sentences.

1. What operations did we study in this section?
2. How do you find the sum of two numbers with the same sign?
3. When can we say that two numbers are additive inverses of each other?
4. What is the sum of two numbers with opposite signs and the same absolute value?
5. How do we find the sum of two numbers with unlike signs?
6. What is the relationship between subtraction and addition?

< 1 > Addition of Two Negative Numbers

Perform the indicated operation. See Example 1.

- | | |
|---|----------------------------------|
| 7. $3 + 10$ | 8. $81 + 19$ |
| 9. $(-3) + (-10)$ | 10. $(-81) + (-19)$ |
| 11. $-3 + (-5)$ | 12. $-7 + (-2)$ |
| 13. $-0.25 + (-0.9)$ | 14. $-0.8 + (-2.35)$ |
| 15. $\left(-\frac{1}{3}\right) + \left(-\frac{1}{6}\right)$ | 16. $\frac{2}{3} + \frac{1}{12}$ |

< 2 > Addition of Numbers with Unlike Signs

Evaluate. See Examples 2 and 3.

- | | |
|--------------------------------------|---|
| 17. $-8 + 8$ | 18. $20 + (-20)$ |
| 19. $-\frac{17}{50} + \frac{17}{50}$ | 20. $\frac{12}{13} + \left(-\frac{12}{13}\right)$ |

21. $-7 + 9$

23. $7 + (-13)$

25. $8.6 + (-3)$

27. $3.9 + (-6.8)$

29. $\frac{1}{4} + \left(-\frac{1}{2}\right)$

22. $10 + (-30)$

24. $-8 + 20$

26. $-9.5 + 12$

28. $-5.24 + 8.19$

30. $-\frac{2}{3} + 2$

< 3 > Subtraction of Signed Numbers

Fill in the parentheses to make each statement correct. See Example 4.

31. $8 - 2 = 8 + (?)$

32. $3.5 - 1.2 = 3.5 + (?)$

33. $4 - 12 = 4 + (?)$

34. $\frac{1}{2} - \frac{5}{6} = \frac{1}{2} + (?)$

35. $-3 - (-8) = -3 + (?)$

36. $-9 - (-2.3) = -9 + (?)$

37. $8.3 - (-1.5) = 8.3 + (?)$

38. $10 - (-6) = 10 + (?)$

Perform the indicated operation. See Example 4.

39. $6 - 10$

40. $3 - 19$

41. $-3 - 7$

42. $-3 - 12$

43. $5 - (-6)$

44. $5 - (-9)$

45. $-6 - 5$

46. $-3 - 6$

47. $\frac{1}{4} - \frac{1}{2}$

48. $\frac{2}{5} - \frac{2}{3}$

49. $\frac{1}{2} - \left(-\frac{1}{4}\right)$

50. $\frac{2}{3} - \left(-\frac{1}{6}\right)$

51. $10 - 3$

52. $13 - 3$

53. $1 - 0.07$

54. $0.03 - 1$