

Answers for Lesson 3-1, pp. 108–110 Exercises

1. irrational, real
2. rational, real
3. rational, real
4. rational, real, perfect square
5. 2, -2
6. $\frac{1}{2}$, $-\frac{1}{2}$
7. 10, -10
8. $\frac{1}{10}$, $-\frac{1}{10}$
9. 7, -7
10. 30, -30
11. $\frac{1}{6}$, $-\frac{1}{6}$
12. $\frac{1}{11}$, $-\frac{1}{11}$
13. $\frac{2}{5}$, $-\frac{2}{5}$
14. 2
15. 3
16. -5
17. 9
18. -7
19. -10
20. 12
21. -11
22. 330 m/s
23. 342 m/s
24. 324 m/s
25. 370 m/s
26. Rational; the decimal terminates.
27. Irrational; 40 is not a perfect square.
28. Irrational; the decimal does not terminate or repeat.
29. Rational; 144 is a perfect square.
30. Irrational; 12 is not a perfect square.
31. Irrational; the decimal does not terminate or repeat.
32. $\frac{9}{10}$ in.
33. 88 ft
34. 9 in.²
35. Answers may vary. Sample: $\sqrt{3}$; 3 is not a perfect square.
36. Find the closest perfect square to 30, which is 25. Then take the square root of 25, which is 5.
37. a. Yes; the sum of even numbers is an even number.
b. Yes; the sum of two irrational numbers is an irrational number.
c. No; the sum of two prime numbers can be a composite number.
38. 36
39. 10
40. 3.2
41. $|a|$
42. 3
43. 4
44. 5
45. -2

Answers for Lesson 3-1, pp. 108–110 Exercises (cont.)

46. $\frac{5}{6}$ in.

47. 26.1 mi

48. when n is a perfect square, including 0

49. The student took the square root of 4 and added it to the square root of 9. You must add $4 + 9$ first and then take the square root.

50. No integer multiplied by itself ends in 2.

51. B

52. F

53. C

54. 1.8×10^4

55. 6.038×10^6

56. 4.97×10^4