

Elementary Algebra Review
to accompany
Elementary and Intermediate Algebra
Dugopolski

Section EA.7 Answer Key

Answers for Section EA.1 Real Numbers and Their Properties

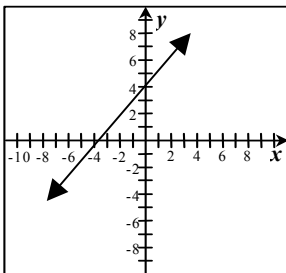
- | | |
|-------------------------------------|---|
| 1. 5, 12 | 2. 0, 5, 12 |
| 2. -6, 0, 5, 12 | 4. $-6, 0, \frac{2}{3}, 5, 12$ |
| 5. $\sqrt{2}, \pi$ | 6. $-6, 0, \frac{2}{3}, \sqrt{2}, \pi, 5, 12$ |
| 7. False. $0 \in W, 0 \notin N$ | 8. True |
| 9. False. The decimal terminates. | 10. True |
| 11. False. $\sqrt{16} = 4, 4 \in Q$ | 12. 2 |
| 13. 34 | 14. -12 |
| 15. -5 | 16. $\frac{4}{5}$ |
| 17. $1\frac{2}{5}$ | 18. $\frac{7}{12}$ |
| 19. $1\frac{5}{12}$ | 20. $\frac{1}{2}$ |
| 21. $\frac{1}{4}$ | 22. 4 |
| 23. $\frac{3}{49}$ | 24. $\frac{2}{3}$ |
| 25. 9 | 26. $\frac{1}{9}$ |
| 27. $\frac{27}{32}$ | 28. 54 |
| 29. -51 | 30. -9 |
| 31. 9 | 32. -30 |
| 33. 6 | 34. -17 |
| 35. 4 | 36. 9 |
| 37. -75 | 38. -25 |
| 39. -21 | 40. $2\frac{1}{2}$ |
| 41. distributive property | 42. commutative property of addition |
| 43. multiplicative inverse | 44. associative property of addition |

Answers for Section EA.2 Linear Equations and Inequalities in One Variable

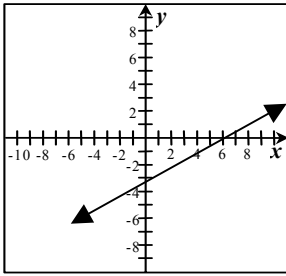
1. $x = 9.4$
2. $x = 8$
5. $x = \frac{17}{3}$
7. all real numbers
9. $b = P - a - c$
11. $y = \frac{-2}{3}x + 2$
13. $x > \frac{-10}{3}$
15. $x \geq 72$
17. $-9 < x < 9$
19. $\frac{-9}{2} < x < \frac{3}{2}$
21. $3 < x < 8$
23. $-8 < x < -1$
25. 4 cm
27. 3 years
29. 68 mph
31. 10, 11, 12
33. \$300
35. 120 gallons
2. $x = 9.2$
4. $y = -17$
6. $y = -4$
8. no solution
10. $2A = bh$
12. $x = \frac{-b}{a}$
14. $x > \frac{9}{2}$
16. $x > \frac{-8}{7}$
18. $x \leq -12$ or $x \geq 12$
20. $x < -7$ or $x > 15$
22. $-3 \leq x < 3$
24. $-3 < x < 3$
26. 6 ft
28. 7%
30. 48 miles
32. 17, 19
34. \$18,500
36. $8\frac{1}{3}$ qt of pure antifreeze, $1\frac{2}{3}$ qt of 20%

Answers for Section EA.3 Linear Equations in Two Variables and Their Graphs

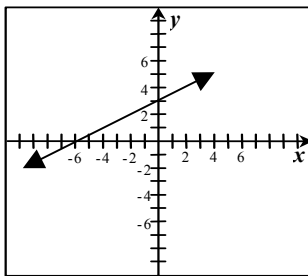
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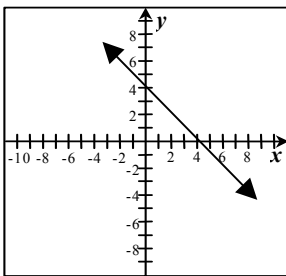
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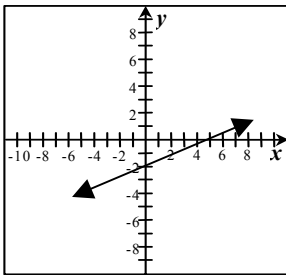
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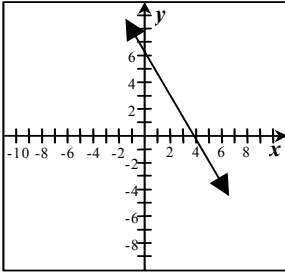
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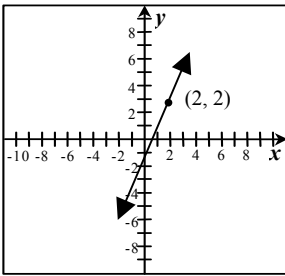
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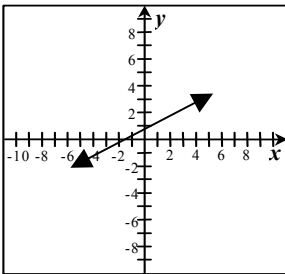
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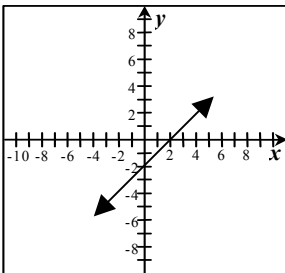
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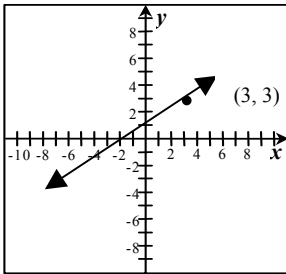
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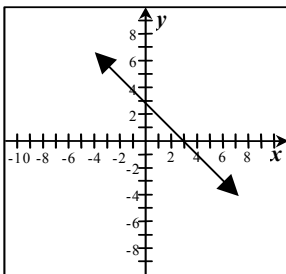
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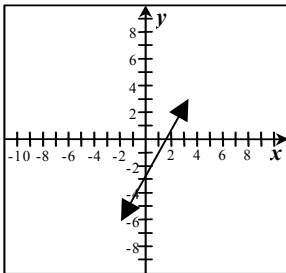
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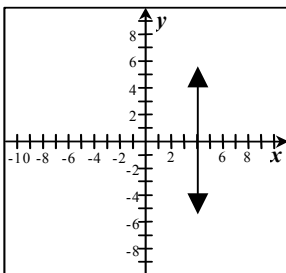
11.



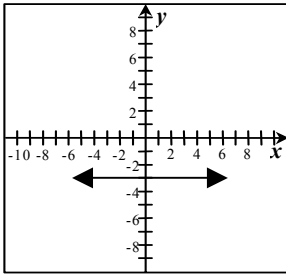
12.



13.



14.



15. $\frac{2}{3}$

17. undefined

19. 0

21. $x - y = 5$

23. $y = \frac{1}{2}x - 2$

25. $y - 2 = \frac{2}{3}(x - 3)$

27. $x + y = 3$

29. $x = 2$

31. $2x - 3y = -5$

33. $y = 4$

16. $\frac{-1}{2}$

18. $\frac{3}{5}$

20. $2x - 5y = 15$

22. $y = \frac{4}{3}x - 8$

24. $y - 4 = -2(x - 1)$

26. $x - 5y = -22$

28. $5x - 2y = 1$

30. $y = 4$

32. $x + 3y = 3$

34. $x = 3$