

Chapter 1 Review

Write the equivalent algebraic expression. (1.1)

- Lauren is 4 years older than Keisha.
- The product of three numbers.
- One third a number increased by twelve.
- Twice the difference between two numbers.
- The difference of two numbers.
- Four times a number reduced by nine.
- Terry is twice Jack's age.
- Double the difference of two numbers.

Write the equivalent English sentence. (1.1)

- | | | |
|------------------------|-------------------------|-----------------------------|
| 9. $4m + 10$ | 13. $4x - 8$ | 17. $x - y = 12$ |
| 10. $Nate + Pete = 25$ | 14. $3x - 7$ | 18. $2(x - y)$ |
| 11. $2x - 5$ | 15. $2c > 3b$ | 19. $x + (x + 1) + (x + 2)$ |
| 12. $x - y$ | 16. $Jean - 9 = Damian$ | 20. $7x$ |

Evaluate. (1.2)

- | | |
|--|---|
| 21. $5 + 8 \times 2 - 9 + 16 \div 4 + 22 \div 2 \times 11$ | 26. $3 + 14 \div 2 + 13 + 45 \div 15 + 21 \div 3 \times 4$ |
| 22. $17 - 14 \div 7 + 21 + 20 \div 5 - 12 \div 4 \times 6$ | 27. $5(18 - 6) \div 12 - (3 \times 12 \div 9 - 4)$ |
| 23. $5(8 - 4) \div 10 + 8 - (5 \times 9 \div 15 - 3) + 7 \times 9$ | 28. $9 - (8 + 7 \times 8) \div [72 - (8 + 4^2 \times 2)] + 7$ |
| 24. $23 - (27 + 7 \times 3) \div [-5 + 4 + (9 + 2^3 \times 2)] + 30$ | 29. $15 + 2 \times 14 - 9 + 8 \div 4 - 9 \div 3 \times 2$ |
| 25. $7 + 12 \times 4 - 4 + 25 \div 5 - 36 \div 4 \times 2$ | 30. $12 - 15 \div 5 + 13 + 20 \div 4 - 9 \div 3 \times 7$ |

Determine if sequence is arithmetic (A), geometric (G), or neither (N). Find next two numbers (1.3)

- | | | |
|-------------------------------|-----------------------------|-------------------------------|
| 31. ...7, 12, 17, 22, 27, ... | 36. ...2, 6, 18, 54, ... | 41. ...3, 12, 60, 360, ... |
| 32. ...8, 16, 32, 64, ... | 37. ...7, 5, 2, -2, ... | 42. ...19, 0, -18, -35, ... |
| 33. ...43, 40, 37, 34, ... | 38. ...1, 4, 9, 16, ... | 43. ...1.5, 3, 4.5, 6.0, ... |
| 34. ...13, 14, 16, 19, ... | 39. ...102, 93, 86, 81, ... | 44. ...144, 121, 100, 81, ... |
| 35. ...3.8, 5.3, 6.8, 8.3 ... | 40. ...-8, 16, -32, 64, ... | 45. ...-7, -9, -12, -16, ... |

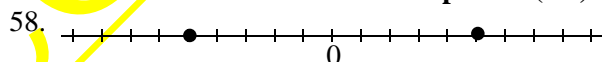
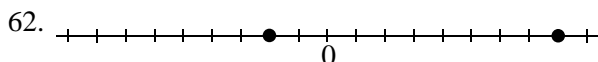
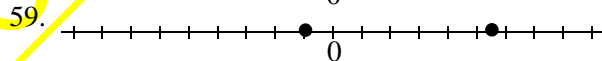
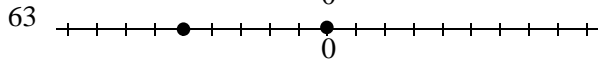
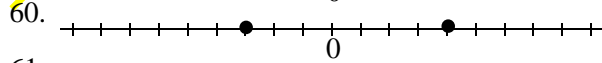
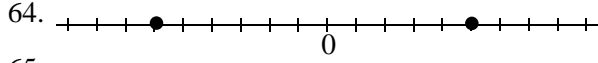

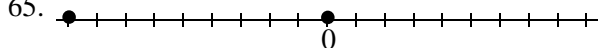
Find the algebraic property. (1.4)

- | | |
|---|---|
| 46. $5 + 11 + 12 + 18 = 12 + 11 + 18 + 5$ | 50. $(8 \times 9) \times 79 = 8 \times (9 \times 79)$ |
| 47. $6(2 + 3 + 12) = 6(2) + 6(3) + 6(12)$ | 51. $2(28) + 2(24) + 2(25) = 2(28 + 24 + 25)$ |
| 48. $13 \times 16 \times 14 \times 8 = 14 \times 16 \times 8 \times 13$ | 52. $4 + 6 + 7 = 6 + 7 + 4$ |
| 49. $20 + 0 = 20$ | 53. $\sqrt{49} = 7$ |

Solve. (1.5)

- Carmen was assessed \$4,000 in real estate taxes. If the value of the property is \$200,000, what percent was used to calculate taxes?
- The magazine you bought cost you \$3.21. If the sales tax rate in your city is 7%, what was the newsstand price?
- Merrill bought a shirt 35% off regular price. If he paid \$33.80, what was the regular price?
- 0.5% of a machine's output is waste. Find the amount of waste in producing 325,000 pieces.

Find the distance between the two points. (1.6)

- | | |
|---|--|
| 58.  | 62.  |
| 59.  | 63.  |
| 60.  | 64.  |
| 61.  | 65.  |