

**TEST BANK FOR ELEMENTARY ALGEBRA
FOR COLLEGE STUDENTS 10TH EDITION
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Elementary

Algebra

for College Students

Exam

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

For the given expression, identify the terms and the numerical coefficients.

- 1) $-2z^6 + z^4 - z - 6 + 6z^4$ 1) _____
- | | |
|--|--|
| <p>A) Constant terms: -6
Variable terms: $-2z^6, z^4, -z, 6z^4$
Coefficients: -2, 1, -1, -6, 6</p> <p>C) Constant terms: -6
Variable terms: $-2z^6, z^4, -z, 6z^4$
Coefficients: -2, -6, 6</p> | <p>B) Constant terms: -2, -6, 6
Variable terms: z^6, z^4, z
Coefficients: -2, 1, -1, 6</p> <p>D) Constant terms: -2, -6, 6
Variable terms: z^6, z^4, z
Coefficients: -2, -6, 6</p> |
|--|--|

- 2) $-\frac{6}{5}f + \frac{1}{10}g - \frac{3}{10}f - \frac{2}{5}g$ 2) _____
- | | |
|---|---|
| <p>A) Constant terms: $-\frac{6}{5}, \frac{1}{10}, -\frac{3}{10}, -\frac{2}{5}$
Variable terms: f, g, f, g
Coefficients: $-\frac{6}{5}, \frac{1}{10}, -\frac{3}{10}, -\frac{2}{5}$</p> <p>C) Constant terms: $-\frac{6}{5}, \frac{1}{10}, -\frac{3}{10}, -\frac{2}{5}$
Variable terms: $-\frac{6}{5}f, \frac{1}{10}g, -\frac{3}{10}f, -\frac{2}{5}g$
Coefficients: $-\frac{6}{5}, \frac{1}{10}, -\frac{3}{10}, -\frac{2}{5}$</p> | <p>B) Constant terms: None
Variable terms: $-\frac{6}{5}f, \frac{1}{10}g, -\frac{3}{10}f, -\frac{2}{5}g$
Coefficients: $-\frac{6}{5}, \frac{1}{10}, -\frac{3}{10}, -\frac{2}{5}$</p> <p>D) Constant terms: $-\frac{6}{5}, \frac{1}{10}, -\frac{3}{10}, -\frac{2}{5}$
Variable terms: f, g
Coefficients: $-\frac{6}{5}, \frac{1}{10}, -\frac{3}{10}, -\frac{2}{5}$</p> |
|---|---|

- 3) $6f(g+8) + 7(g+8)$ 3) _____
- | | |
|--|--|
| <p>A) Constant terms: 8, 7
Variable terms: 6fg, 7g
Coefficients: 6, 7</p> <p>C) Constant terms: None
Variable terms: 6f, 6(g+8), 7(g+8)
Coefficients: 6, 7</p> | <p>B) Constant terms: 7
Variable terms: 6f, (g+8)
Coefficients: 6, 7</p> <p>D) Constant terms: None
Variable terms: 6f(g+8), 7(g+8)
Coefficients: 6, 7</p> |
|--|--|

- 4) $a^2 - b^2 - 7ab - 4$ 4) _____
- | | |
|--|---|
| <p>A) Constant terms: -7, 4
Variable terms: $a^2, -b^2, ab$
Coefficients: -7</p> <p>C) Constant terms: -4
Variable terms: $a^2, b^2, -7a, b$
Coefficients: 1, -1, -7, -4</p> | <p>B) Constant terms: -7, -4
Variable terms: a^2, b^2, ab
Coefficients: -7</p> <p>D) Constant terms: -4
Variable terms: $a^2, -b^2, -7ab$
Coefficients: 1, -1, -7, -4</p> |
|--|---|

Determine whether the terms are like or unlike.

- 5) 2z, -4z 5) _____
- | | |
|---------|-----------|
| A) like | B) unlike |
|---------|-----------|

- 6) $17a^6, 17a^5$
 A) like
 B) unlike
 6) _____
- 7) $11m, 14m, -15m$
 A) like
 B) unlike
 7) _____
- 8) $11b, 14, 15a$
 A) like
 B) unlike
 8) _____
- 9) $24xy^3z, -21xy^2$
 A) like
 B) unlike
 9) _____
- 10) $ab, 17ba$
 A) like
 B) unlike
 10) _____
- 11) $11, 3, -13$
 A) like
 B) unlike
 11) _____

Simplify.

- 12) $4a - 2a + 2$
 A) $4a$
 B) $2a + 2$
 C) $6a + 2$
 D) $-2a + 2$
 12) _____
- 13) $-4b + 6b$
 A) $2b^2$
 B) $-2b$
 C) $2b$
 D) $-10b$
 13) _____
- 14) $-8y - 3y$
 A) $-11y^2$
 B) $-11y$
 C) $-5y$
 D) $11y$
 14) _____
- 15) $-4y + 6 - 4 + 2 + y - 4$
 A) $-5y$
 B) $-5y + 1$
 C) $-3y - 1$
 D) $-3y$
 15) _____
- 16) $10x^8 - 15x^8$
 A) $-5x^{16}$
 B) $-5x^{64}$
 C) $-5x^8$
 D) $-6x^8$
 16) _____
- 17) $0.2x + 1.5x + 1.2x$
 A) $15x$
 B) $0.2x + 1.5x + 1.2x$
 C) $2.9x$
 D) $3.1x$
 17) _____
- 18) $-4y^5 - 14y^5$
 A) $-18y^5$
 B) $10y^5$
 C) $-4y^5 - 14y^5$
 D) $-18y^{10}$
 18) _____
- 19) $6z + 2 - 4z + 1$
 A) $5z$
 B) $2z + 3$
 C) $2z + 1$
 D) $10z + 3$
 19) _____
- 20) $5.4k - 1.8 - 3.3k + 8 + 2.3k$
 A) $4.4k + 6.2$
 B) $11k + 6.2$
 C) $4.4k - 6.2$
 D) $4.4k + 9.8$
 20) _____

21) $\frac{2}{5}x + \frac{3}{8} - \frac{3}{8}x$ 21) _____
 A) $\frac{1}{40}x + \frac{3}{8}$ B) $\frac{31}{40}x - \frac{3}{8}$ C) $\frac{2}{5}x$ D) $-\frac{3}{20}x + \frac{3}{8}$

22) $-\frac{4}{7}x + \frac{5}{8} - \frac{5}{8}x - 4$ 22) _____
 A) $-\frac{67}{56}x + \frac{37}{8}$ B) $\frac{3}{56}x - \frac{27}{8}$ C) $-\frac{67}{56}x - \frac{27}{8}$ D) $-\frac{3}{56}x - \frac{27}{8}$

23) $\frac{2}{7}x + \frac{1}{4} + \frac{1}{4}x + \frac{1}{6}$ 23) _____
 A) $\frac{1}{4}x + \frac{1}{24}$ B) $\frac{15}{28}x + \frac{1}{24}$ C) $\frac{15}{28}x + \frac{5}{12}$ D) $\frac{1}{28}x + \frac{5}{12}$

24) $\frac{1}{2}x + \frac{3}{4} + \frac{3}{4}x + \frac{1}{6}$ 24) _____
 A) $\frac{5}{4}x + \frac{11}{12}$ B) $\frac{1}{8}x + \frac{1}{8}$ C) $-\frac{1}{4}x + \frac{11}{12}$ D) $\frac{5}{4}x + \frac{1}{8}$

25) $-\frac{1}{3}x - \frac{3}{2}y + \frac{2}{3}x - \frac{1}{6}y - \frac{1}{3}x + \frac{5}{3}y$ 25) _____
 A) $\frac{1}{2}x + \frac{3}{2}y$ B) 0 C) $\frac{1}{3}x + \frac{4}{3}y$ D) $\frac{1}{3}x + \frac{3}{2}y$

Use the distributive property to remove parentheses.

26) $8(k + r)$ 26) _____
 A) $8kr$ B) $8k + r$ C) $8k - 8r$ D) $8k + 8r$

27) $9(4n + 4)$ 27) _____
 A) $36n + 4$ B) $13n + 13$ C) $72n$ D) $36n + 36$

28) $-9(6n + 8)$ 28) _____
 A) $-54n + 8$ B) $-3n - 1$ C) $-126n$ D) $-54n - 72$

29) $\frac{1}{5}(15x - 10)$ 29) _____
 A) $3x - 2$ B) x C) $3x - 10$ D) $75x - 50$

30) $7(5x + 2y + 2)$ 30) _____
 A) $35x + 2y + 2$ B) $35x + 14y + 2$ C) $35x + 14y + 14$ D) $35x + 2y + 14$

31) $-\frac{5}{2}(4y + 8x + 8z)$ 31) _____
 A) $-10y - 20x + 20z$ B) $-10y + 8x + 8z$
 C) $-10y + 20x - 20z$ D) $-10y - 20x - 20z$

- 32) $0.3(3x + 2.4)$ 32) _____
 A) $0.9x + 2.4$ B) $10x + 0.72$ C) $3.3x + 2.7$ D) $0.9x + 0.72$
- 33) $1.2(2.8x - 4.5y + 3.3)$ 33) _____
 A) $2.33x - 3.75y + 2.75$ B) $4x - 3.3y + 4.5$
 C) $3.36x - 5.4y + 3.96$ D) $3.36x - 4.5y + 3.3$
- 34) $-(4x + 5y)$ 34) _____
 A) $-4x + 5y$ B) $4x + 5y$ C) $4x - 5y$ D) $-4x - 5y$
- 35) $(-8m + 8n - 4p)$ 35) _____
 A) $8m - 8n - 4p$ B) $-8m + 8n + 4p$ C) $-8m + 8n - 4p$ D) $8m - 8n + 4p$

Simplify.

- 36) $-5(10r + 10) + 7(4r + 2)$ 36) _____
 A) $-22r - 36$ B) $5r + 5$ C) $-100r$ D) $-22r + 10$
- 37) $-3(8r + 4) + 6(7r + 4)$ 37) _____
 A) $18r + 12$ B) $-36r$ C) $5r + 1$ D) $18r + 4$
- 38) $-4 + 2(17 - 8m)$ 38) _____
 A) $30 + 16m$ B) $34 - 16m$ C) $30 - 8m$ D) $30 - 16m$
- 39) $-6(2x - 9) - 4x + 6$ 39) _____
 A) $16x + 60$ B) $-16x - 48$ C) $-16x + 60$ D) $8x + 60$
- 40) $-2(7r + 4) + 3(8r + 6)$ 40) _____
 A) $5r + 2$ B) $10r + 4$ C) $10r + 10$ D) $-22r$
- 41) $-5x - 4(x + 4y)$ 41) _____
 A) $-6x - 16y$ B) $-9x + 16y$ C) $-9x + 4y$ D) $-9x - 16y$
- 42) $-\left(\frac{6}{7}x - \frac{1}{5}\right) + 2x$ 42) _____
 A) $\frac{47}{35}x$ B) $\frac{20}{7}x + \frac{1}{5}$ C) $\frac{8}{7}x + \frac{1}{5}$ D) $-\frac{4}{7}x - \frac{1}{5}$
- 43) $0.8 - 0.3(y + 2) + 0.3 - 4$ 43) _____
 A) $y + 4.5$ B) $-0.3y - 4.9$ C) $0.3y - 2.3$ D) $-0.3y - 3.5$

Identify the equation as linear or nonlinear.

- 44) $4x + 2y = -4$ 44) _____
 A) linear B) nonlinear
- 45) $y = \frac{1}{3}x - 4$ 45) _____
 A) linear B) nonlinear

46) $y = x^2 + 1$ 46) _____
 A) linear B) nonlinear

47) $y - x = -2$ 47) _____
 A) nonlinear B) linear

Solve the problem.

48) Is $p = 14$ a solution of $p + 3 = 17$? 48) _____
 A) Yes B) No

49) Is $x = 5$ a solution of $x - 1 = 4$? 49) _____
 A) Yes B) No

50) Is $x = 2$ a solution of $8x + 9 = 27$? 50) _____
 A) Yes B) No

51) Is $y = 5$ a solution of $2y + 4(y - 3) = 18$? 51) _____
 A) Yes B) No

52) Is $x = 5$ a solution of $4x + 3x - 8 = 27$? 52) _____
 A) Yes B) No

53) Is $k = -\frac{1}{5}$ a solution of $4k - 5 = 9k - 6$? 53) _____
 A) Yes B) No

54) Is $z = \frac{5}{4}$ a solution of $-(z - 10) - (z - 1) = 2z - -6$? 54) _____
 A) Yes B) No

Determine whether the given equations are equivalent equations.

55) $3x - 5 = 7, 3x = 12, x = 4$ 55) _____
 A) Equivalent equations B) Not equivalent equations

56) $2x + 3 = 7, 2x = 10, x = 5$ 56) _____
 A) Equivalent equations B) Not equivalent equations

Solve the equation and check your solution.

57) $x - 18 = -5$ 57) _____
 A) $x = -23$ B) $x = 13$ C) $x = -13$ D) $x = 23$

58) $11 = x - 10$ 58) _____
 A) $x = -1$ B) $x = -21$ C) $x = 1$ D) $x = 21$

59) $t - 2 = 13$ 59) _____
 A) $t = 15$ B) $t = 11$ C) $t = -15$ D) $t = -11$

- 60) $-6.8 + x = 15.7$ 60) _____
A) $x = 8.9$ B) $x = 22$ C) $x = 22.5$ D) $x = 8.4$
- 61) $-6.4 + x = 20$ 61) _____
A) $x = 13.1$ B) $x = 25.9$ C) $x = 26.4$ D) $x = 13.6$
- 62) $1.7 + x = 23.7$ 62) _____
A) $x = 25.4$ B) $x = 21.5$ C) $x = 24.9$ D) $x = 22$
- 63) $-3.6 = 18 - x$ 63) _____
A) $x = 21.1$ B) $x = 21.6$ C) $x = 14.4$ D) $x = 13.9$
- 64) $8.5 = 10.4 - x$ 64) _____
A) $x = 18.9$ B) $x = 18.4$ C) $x = 1.9$ D) $x = 1.4$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 65) There are no exercises for this objective. 65) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the reciprocal.

- 66) 25 66) _____
A) 1 B) -25 C) $\frac{1}{25}$ D) $-\frac{1}{25}$
- 67) $\frac{1}{6}$ 67) _____
A) 1 B) $-\frac{1}{6}$ C) 6 D) -6
- 68) $\frac{4}{9}$ 68) _____
A) $-\frac{9}{4}$ B) 9 C) $-\frac{4}{9}$ D) $\frac{9}{4}$
- 69) $\frac{8}{3}$ 69) _____
A) 3 B) $-\frac{8}{3}$ C) $-\frac{3}{8}$ D) $\frac{3}{8}$

Solve the equation and check your solution.

- 70) $-\frac{1}{6}x = -6$ 70) _____
A) $x = 1$ B) $x = -13$ C) $x = -12$ D) $x = 36$

- 71) $\frac{1}{4}a = 0$ 71) _____
 A) $a = 4$ B) $a = 0$ C) $a = 1$ D) $a = -4$
- 72) $\frac{n}{3} = 7$ 72) _____
 A) $n = 2$ B) $n = 9$ C) $n = 10$ D) $n = 21$
- 73) $4a = -36$ 73) _____
 A) $a = -9$ B) $a = 1$ C) $a = -40$ D) $a = 40$
- 74) $-5x = -30$ 74) _____
 A) $x = 2$ B) $x = -25$ C) $x = 25$ D) $x = 6$
- 75) $\frac{1}{3}x = \frac{1}{5}$ 75) _____
 A) $x = \frac{9}{5}$ B) $x = -\frac{3}{5}$ C) $x = \frac{3}{5}$ D) $x = \frac{5}{3}$
- 76) $\frac{n}{2} = 15$ 76) _____
 A) $n = 7$ B) $n = 17$ C) $n = 16$ D) $n = 30$
- 77) $-\frac{2}{13}k = \frac{4}{13}$ 77) _____
 A) $k = 11$ B) $k = 10$ C) $k = -7$ D) $k = -2$
- 78) $\frac{x}{2} = 6$ 78) _____
 A) $x = 12$ B) $x = 7$ C) $x = 8$ D) $x = 3$
- 79) $-7x = 42$ 79) _____
 A) $x = 1$ B) $x = -6$ C) $x = -49$ D) $x = 49$
- 80) $-11.6 = -2.9x$ 80) _____
 A) $x = 2$ B) $x = -8.7$ C) $x = 8.7$ D) $x = 4$
- 81) $-4x = -36$ 81) _____
 A) $x = 32$ B) $x = 9$ C) $x = 2$ D) $x = -32$
- 82) $-\frac{4}{9}x = \frac{6}{7}$ 82) _____
 A) $x = \frac{27}{14}$ B) $x = -\frac{14}{27}$ C) $x = -\frac{54}{7}$ D) $x = -\frac{27}{14}$
- 83) $-18.4 = -2.3x$ 83) _____
 A) $x = 2$ B) $x = 8$ C) $x = -16.1$ D) $x = 16.1$

- 84) $-10.26 = 1.71v$ 84) _____
 A) $v = 6$ B) $v = -17.54$ C) $v = -\frac{1}{6}$ D) $v = -6$
- 85) $-z = -9$ 85) _____
 A) $z = -1$ B) $z = -9$ C) $z = 0$ D) $z = 9$
- 86) $-x = -\frac{9}{7}$ 86) _____
 A) $x = \frac{9}{7}$ B) $x = -\frac{7}{9}$ C) $x = \frac{7}{9}$ D) $x = -\frac{9}{7}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 87) There are no exercises for this objective. 87) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Solve the equation.

- 88) $9x - (4x - 1) = 2$ 88) _____
 A) $x = -\frac{1}{5}$ B) $x = \frac{1}{5}$ C) $x = \frac{1}{13}$ D) $x = -\frac{1}{13}$
- 89) $10r + 4 = 24$ 89) _____
 A) $r = 2$ B) $r = 1$ C) $r = 10$ D) $r = 14$
- 90) $3n - 6 = 18$ 90) _____
 A) $n = 8$ B) $n = 25$ C) $n = 12$ D) $n = 21$
- 91) $59 = -10x + 9$ 91) _____
 A) $x = 14$ B) $x = 60$ C) $x = -5$ D) $x = 64$
- 92) $5(k - 3) - (4k - 3) = 9$ 92) _____
 A) $k = -21$ B) $k = -3$ C) $k = -9$ D) $k = 21$
- 93) $9x - (8x - 1) = 2$ 93) _____
 A) $\frac{1}{17}$ B) -1 C) 1 D) $-\frac{1}{17}$
- 94) $5(2x - 1) = 20$ 94) _____
 A) $\frac{19}{10}$ B) $\frac{5}{2}$ C) $\frac{3}{2}$ D) $\frac{21}{10}$
- 95) $x - 3(2x + 10) = -5$ 95) _____
 A) $x = -1$ B) $x = 7$ C) $x = -5$ D) $x = \frac{35}{9}$

- 96) $3x - 4x + 3x = -70$ 96) _____
 A) $x = -35$ B) $x = -72$ C) $x = 17.5$ D) $x = 0$
- 97) $\frac{a}{3} - \frac{1}{3} = -2$ 97) _____
 A) $a = -7$ B) $a = -5$ C) $a = 5$ D) $a = 7$
- 98) $0.70x - 0.20(30 + x) = 0.30(30)$ 98) _____
 A) $x = 40$ B) $x = 15$ C) $x = 20$ D) $x = 30$
- 99) $\frac{f}{5} - 4 = 1$ 99) _____
 A) $f = -15$ B) $f = 15$ C) $f = -25$ D) $f = 25$
- 100) $\frac{2x}{5} - \frac{x}{3} = 4$ 100) _____
 A) $x = 120$ B) $x = -60$ C) $x = 60$ D) $x = -120$
- 101) $\frac{b}{12} - 8 = -5$ 101) _____
 A) $b = 36$ B) $b = -38$ C) $b = 38$ D) $b = -36$
- 102) $13.8 = -16.5 - n$ 102) _____
 A) $n = -2.7$ B) $n = -30.3$ C) $n = 30.3$ D) $n = 2.7$
- 103) $5.34 - 4.8x - 1.3x = 24.86$ 103) _____
 A) $x = -3.2$ B) $x = -4.95$ C) $x = 4.2$ D) $x = 7.1$
- 104) $\frac{2}{3} = \frac{1}{3}(t - 1)$ 104) _____
 A) $t = \frac{5}{3}$ B) $t = 1$ C) $t = 3$ D) $t = \frac{25}{12}$
- 105) $3(y + 7) = 4(y - 8)$ 105) _____
 A) $y = 11$ B) $y = 53$ C) $y = -53$ D) $y = -11$
- 106) $6x + 7(2x - 4) = 1 - 9x$ 106) _____
 A) $x = -\frac{27}{11}$ B) $x = -1$ C) $x = -\frac{27}{29}$ D) $x = 1$
- 107) $(y - 3) - (y + 4) = 6y$ 107) _____
 A) $y = -\frac{1}{3}$ B) $y = -7$ C) $y = -\frac{7}{6}$ D) $y = -\frac{7}{3}$
- 108) $8p = 7(4p + 7)$ 108) _____
 A) $p = -\frac{49}{20}$ B) $p = \frac{49}{8}$ C) $p = \frac{49}{20}$ D) $p = \frac{20}{49}$

- 109) $15(7c - 5) = 8c - 3$ 109) _____
 A) $c = \frac{78}{97}$ B) $c = \frac{72}{113}$ C) $c = \frac{72}{97}$ D) $c = -\frac{72}{97}$
- 110) $5(y + 8) = 6(y - 3)$ 110) _____
 A) $y = 22$ B) $y = -22$ C) $y = -58$ D) $y = 58$
- 111) $5(2z - 3) = 9(z + 3)$ 111) _____
 A) $z = 17$ B) $z = -12$ C) $z = 42$ D) $z = 12$
- 112) $3p = 5(3p + 5)$ 112) _____
 A) $p = \frac{12}{25}$ B) $p = \frac{25}{3}$ C) $p = -\frac{25}{12}$ D) $p = \frac{25}{12}$
- 113) $2(2z - 4) = 3(z + 4)$ 113) _____
 A) $z = 6$ B) $z = -4$ C) $z = 20$ D) $z = 4$
- 114) $-7x + 4(3x - 5) = -9 - 6x$ 114) _____
 A) $x = -1$ B) $x = 1$ C) $x = -\frac{29}{11}$ D) $x = 29$
- 115) $\frac{r + 6}{5} = \frac{r + 8}{7}$ 115) _____
 A) $r = -1$ B) $r = 2$ C) $r = 1$ D) $r = -2$
- 116) $\frac{3(y - 2)}{5} = 1 - 3y$ 116) _____
 A) $y = \frac{11}{18}$ B) $y = \frac{11}{6}$ C) $y = \frac{7}{6}$ D) $y = -\frac{11}{18}$
- 117) $-0.08y + 0.13(500 - y) = 0.29y$ 117) _____
 A) $y = 130$ B) $y = 325$ C) $y = 32.5$ D) $y = 260$
- 118) $0.03(40) + 0.70x = 0.40(40 + x)$ 118) _____
 A) $x = 25$ B) $x = 50$ C) $x = 40$ D) $x = 60$
- 119) $\frac{2x}{5} = \frac{x}{3} + 3$ 119) _____
 A) $x = 90$ B) $x = -45$ C) $x = 45$ D) $x = -90$
- 120) $\frac{r}{3} + \frac{6}{3} = \frac{r}{6} + \frac{8}{6}$ 120) _____
 A) $r = 4$ B) $r = 3$ C) $r = -4$ D) $r = -12$

121) $\frac{7}{3} - \frac{x}{3} = \frac{x}{4}$ 121) _____
 A) $x = -4$ B) $x = 4$ C) $x = \frac{28}{5}$ D) $x = 7$

122) $\frac{y}{5} - \frac{2}{5} = \frac{1}{3} - y$ 122) _____
 A) $y = -\frac{11}{18}$ B) $y = \frac{11}{18}$ C) $y = \frac{7}{6}$ D) $y = \frac{11}{6}$

123) $1.8m + 0.2 + 3.3m = 8.6 + 5.1m - 8.4$ 123) _____
 A) $m = 4.7$ B) $m = 0$
 C) no solution D) all real numbers

124) $8x - 6 + 4x - 9 = 3x + 9x - 18$ 124) _____
 A) $x = 128$ B) all real numbers
 C) no solution D) $x = 0$

125) $7(x + 5) = (7x + 35)$ 125) _____
 A) all real numbers B) $x = 70$
 C) $x = 0$ D) no solution

126) $5(x + 2) - (5x + 10) = 0$ 126) _____
 A) all real numbers B) $x = 0$
 C) no solution D) $x = 2$

127) $\frac{1}{5}(10x - 15) = 6\left(\frac{1}{3}x - \frac{1}{2}\right) + 10$ 127) _____
 A) no solution B) $x = \frac{5}{2}$
 C) $x = 0$ D) all real numbers

128) $\frac{x}{5} - 10 = \frac{x}{5}$ 128) _____
 A) all real numbers B) $x = 25$
 C) no solution D) $x = 0$

Use the simple interest formula.

129) Kevin invested part of his \$10,000 bonus in a certificate of deposit that paid 6% annual simple interest, and the remainder in a mutual fund that paid 11% annual simple interest. If his total interest for that year was \$800, how much did Kevin invest in the mutual fund? 129) _____
 A) \$3000 B) \$5000 C) \$4000 D) \$6000

130) How can \$42,000 be invested, part at 4% annual simple interest and the remainder at 10% annual simple interest, so that the interest earned by the two accounts is equal at the end of the year? 130) _____
 A) \$12,000 invested at 4%; \$30,000 invested at 10%
 B) \$22,000 invested at 4%; \$20,000 invested at 10%
 C) \$30,000 invested at 4%; \$12,000 invested at 10%
 D) \$20,000 invested at 4%; \$22,000 invested at 10%

131) Melissa invested a sum of money at 3% annual simple interest. She invested three times that sum at 5% annual simple interest. If her total yearly interest from both investments was \$7200, how much was invested at 3%? 131) _____
 A) \$90,000 B) \$40,000 C) \$30,000 D) \$270,000

132) If \$38,000 is invested at 10% simple annual interest, how much should be invested at 12% annual simple interest so that the total yearly income from both investments is \$5000? 132) _____
 A) \$10,000 B) \$4400 C) \$440 D) \$1000

133) Alice invested some money at 16% simple interest. At the end of the year the total amount of her original principal and the interest was \$14,848. How much did she originally invest? 133) _____
 A) \$928 B) \$12,800 C) \$237,568 D) \$2048

134) Find the interest on \$2900 borrowed at an interest rate of 4% for one year. 134) _____
 A) \$725 B) \$116 C) \$3016 D) \$1160

Use the distance formula.

135) A contestant in a 26-mile race finished in 5 hours. What was her average rate during the race? (Round to the nearest tenth, if necessary.) 135) _____
 A) 0.2 mph B) 5.2 mph C) 130 mph D) 21 mph

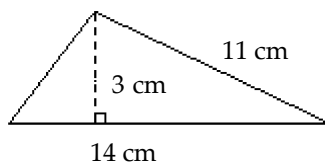
136) How long would it take to drive 560 kilometers if your average rate of speed was 80 kilometers per hour? 136) _____
 A) 448 hr B) 64 hr C) 8 hr D) 7 hr

137) Ashley drove home from school for Thanksgiving. She traveled 270 miles in 5 hours. What was her average speed? 137) _____
 A) 59 mph B) 54 mph C) 265 mph D) 51 mph

138) Chris rode his bike at an average speed of 15.7 miles per hour for 4 hours. How far did he bike? 138) _____
 A) 3.9 mph B) 62.8 mi C) 15.7 mi D) 78.5 mi

Determine the area or volume as indicated. Use 3.14 for π when necessary.

139) 139) _____

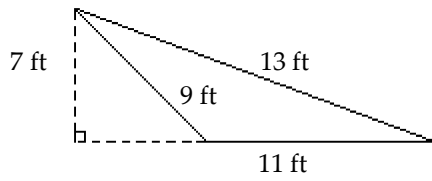


Find the area.

- A) 77 cm^2 B) 21 cm^2 C) 16.5 cm^2 D) 42 cm^2

140)

140) _____

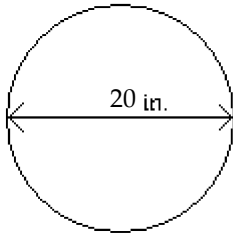


Find the area.

- A) 31.5 ft^2 B) 77 ft^2 C) 45.5 ft^2 D) 38.5 ft^2

141)

141) _____

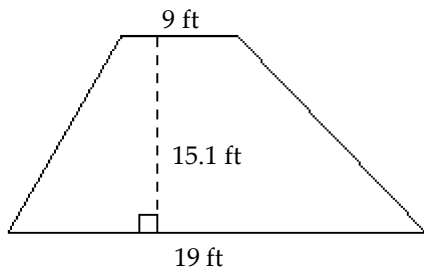


Find the area.

- A) 125.60 in.^2 B) 1256.00 in.^2 C) 314.00 in.^2 D) 62.80 in.^2

142)

142) _____

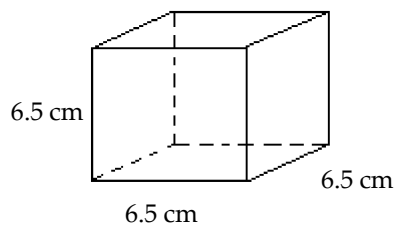


Find the area.

- A) 135.9 ft^2 B) 422.8 ft^2 C) 286.9 ft^2 D) 211.4 ft^2

143)

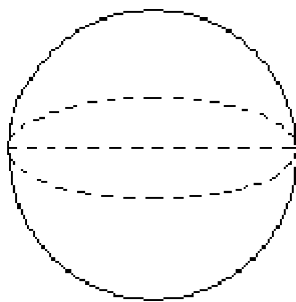
143) _____



Find the volume.

- A) 274.625 cm^3 B) 19.5 cm^3 C) 84.5 cm^3 D) 42.25 cm^3

144)



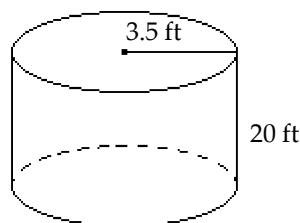
diameter = 3.4 m

Find the volume. Round to the nearest hundredth.

- A) 36.30 m^3 B) 123.41 m^3 C) 20.57 m^3 D) 6.05 m^3

144) _____

145)

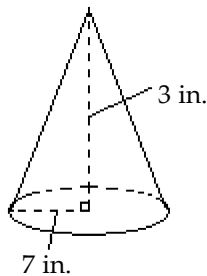


Find the volume.

- A) 439.6 ft^3 B) 219.8 ft^3 C) 3077.2 ft^3 D) 769.3 ft^3

145) _____

146)



Find the volume. Round to the nearest whole unit.

- A) 308 in.^3 B) 44 in.^3 C) 231 in.^3 D) 154 in.^3

146) _____

Use geometry formulas to solve.

147) A circular fountain has a radius of 19 ft. Determine the circumference of the fountain.

- A) 29.83 ft B) 1133.54 ft C) 119.32 ft D) 59.66 ft

147) _____

148) Michael is shipping his mother's birthday gift to her in a rectangular box. If the gift's dimensions are 3 inches long by 6 inches wide by 10 inches high, find the volume of the smallest box that will hold the gift.

- A) 180 in.^3 B) 18 in.^3 C) 360 in.^3 D) 19 in.^3

148) _____

Use the formula to find the value of the variable indicated. Use a calculator to save time and where necessary, round your answer to the nearest hundredth.

149) $A = \frac{1}{2}bh$; find b when $A = 16$ and $h = 6$. 149) _____

- A) $b = 0.19$ B) $b = 48$ C) $b = 1.33$ D) $b = 5.33$

150) $V = \frac{1}{3}Bh$; find h when $V = 48$ and $B = 12$. 150) _____

- A) $h = 12$ B) $h = 0.75$ C) $h = 0.08$ D) $h = 0.33$

151) $d = rt$; find r when $d = 560$ and $t = 8$. 151) _____

- A) $r = 552$ B) $r = 70$ C) $r = 4480$ D) $r = 0.01$

152) $P = 2l + 2w$; find l when $P = 24$ and $w = 4$. 152) _____

- A) $l = 16$ B) $l = 20$ C) $l = 10$ D) $l = 8$

153) $P = \frac{A}{1 + rt}$; find r when $P = 1650$, $A = 2145$, and $t = 4$. 153) _____

- A) $r = 0.19$ B) $r = 6930$ C) $r = 0.08$ D) $r = 99$

Solve for the indicated variable.

154) $A = \frac{1}{2}bh$, for b 154) _____

- A) $b = \frac{2A}{h}$ B) $b = \frac{A}{2h}$ C) $b = \frac{Ah}{2}$ D) $b = \frac{h}{2A}$

155) $S = 2\pi rh + 2\pi r^2$, for h 155) _____

- A) $h = \frac{S - 2\pi r^2}{2\pi r}$ B) $h = S - r$ C) $h = 2\pi(S - r)$ D) $h = \frac{S}{2\pi r} - 1$

156) $V = \frac{1}{3}Bh$, for h 156) _____

- A) $h = \frac{B}{3V}$ B) $h = \frac{3V}{B}$ C) $h = \frac{3B}{V}$ D) $h = \frac{V}{3B}$

157) $F = \frac{9}{5}C + 32$, for C 157) _____

- A) $C = \frac{9}{5}(F - 32)$ B) $C = \frac{5}{F - 32}$ C) $C = \frac{5}{9}(F - 32)$ D) $C = \frac{F - 32}{9}$

158) $A = \frac{1}{2}h(a + b)$, for a 158) _____

- A) $a = \frac{2bA - h}{h}$ B) $a = \frac{hb - 2A}{h}$ C) $a = \frac{A - hb}{2h}$ D) $a = \frac{2A - hb}{h}$

159) $d = rt$, for t 159) _____
 A) $t = \frac{d}{r}$ B) $t = dr$ C) $t = d - r$ D) $t = \frac{r}{d}$

160) $P = 2l + 2w$, for l 160) _____
 A) $l = \frac{P - w}{2}$ B) $l = \frac{P - 2w}{2}$ C) $l = P - 2w$ D) $l = P - w$

161) $A = P(1 + nr)$, for r 161) _____
 A) $r = \frac{A}{Pn}$ B) $r = \frac{A - P}{Pn}$ C) $r = \frac{P - A}{Pn}$ D) $r = \frac{Pn}{A - P}$

162) $I = Prt$, for r 162) _____
 A) $r = \frac{P - I}{Pt}$ B) $r = \frac{I}{Pt}$ C) $r = P - tI$ D) $r = \frac{P - I}{1 + t}$

163) $\frac{1}{a} + \frac{1}{b} = \frac{1}{c}$, for c 163) _____
 A) $c = a + b$ B) $c = \frac{a + b}{ab}$ C) $c = \frac{ab}{a + b}$ D) $c = ab(a + b)$

164) $P = \frac{A}{1 + rt}$, for r 164) _____
 A) $r = \frac{P - A}{1 + t}$ B) $r = \frac{P - 1}{At}$ C) $r = \frac{A - P}{Pt}$ D) $r = P - tA$

165) $A = \frac{1}{2}h(B + b)$, for b 165) _____
 A) $b = \frac{2A - Bh}{h}$ B) $b = 2A - Bh$ C) $b = \frac{2A + Bh}{h}$ D) $b = \frac{A - Bh}{h}$

Solve the equation for y .

166) $3x + y = 15$ 166) _____
 A) $y = \frac{15 - x}{3}$ B) $y = 5 - x$ C) $y = 15 - 3x$ D) $y = 3x + 15$

167) $14x + 9y = 11$ 167) _____
 A) $y = \frac{14}{9}x - \frac{11}{9}$ B) $y = 14x - 11$ C) $y = -\frac{14}{9}x + \frac{11}{9}$ D) $y = \frac{14}{9}x + \frac{11}{9}$

168) $x = 9y + 8$ 168) _____
 A) $y = \frac{1}{9}x - \frac{8}{9}$ B) $y = 9x - 8$ C) $y = x - \frac{8}{9}$ D) $y = \frac{1}{9}x - 8$

169) $-2x + 6y = 0$ 169) _____
 A) $y = 3x + 2$ B) $y = 3x$ C) $y = -3x$ D) $y = \frac{x}{3}$

Solve the problem.

170) Use the formula $d = \frac{1}{2}n^2 - \frac{3}{2}n$ to find the number of diagonals in a figure with the given number of sides. 170) _____
 9 sides
 A) 54 B) 27 C) 34 D) 7

171) Use the formula $C = \frac{5}{9}(F - 32)$ to find the Celsius temperature (C) equivalent to the given Fahrenheit temperature (F). 171) _____
 $F = 230^\circ$
 A) $C = 356.4^\circ$ B) $C = 110^\circ$ C) $C = 145.6^\circ$ D) $C = 446^\circ$

172) Use the formula $F = \frac{9}{5}C + 32$, to find the Fahrenheit temperature (F) equivalent to the given Celsius temperature (C). 172) _____
 $C = 340^\circ$
 A) $F = 644^\circ$ B) $F = 172.6^\circ$ C) $F = 580^\circ$ D) $F = 208.2^\circ$

173) In chemistry, the ideal gas law is $P = \frac{KT}{V}$ where P is pressure, T is temperature, V is volume, and K is constant. Find the missing quantity. 173) _____
 $V = 6, P = 80, K = 4$
 A) $T = 1920$ B) $T = 120$ C) $T = 3.33$ D) $T = 53.33$

Is the proportion set up correctly?

174) $\frac{oz}{hr} = \frac{oz}{hr}$ 174) _____
 A) Yes B) No

175) $\frac{in}{hr} = \frac{in}{hr}$ 175) _____
 A) Yes B) No

176) $\frac{ft}{sec} = \frac{sec}{ft}$ 176) _____
 A) Yes B) No

The results of a mathematics examination are given. Write the ratio in lowest terms.

177) Results: 6 A's, 5 B's, 9 C's, 3 D's, 2 F's 177) _____
 A's to B's
 A) 1 : 1 B) 6 : 1 C) 6 : 5 D) 5 : 6

178) Results: 6 A's, 6 B's, 17 C's, 7 D's, 3 F's 178) _____
 A's to total grades
 A) 2 : 11 B) 13 : 3 C) 2 : 39 D) 2 : 13

- 179) Results: 6 A's, 6 B's, 10 C's, 2 D's, 2 F's
 Grades better than C to total grades
 A) 7 : 1 B) 6 : 13 C) 11 : 13 D) 5 : 13 179) _____

Determine the following ratio. Write the ratio as a fraction in lowest terms.

- 180) 8 inches to 12 inches
 A) 3:2 B) - 3:2 C) - 2:3 D) 2:3 180) _____

- 181) 9 inches to 11 feet
 A) 9:11 B) 44:3 C) 3:44 D) 11:9 181) _____

- 182) 92 minutes to 9 hours
 A) 9:92 B) 23:135 C) 135:23 D) 92:9 182) _____

- 183) 3 quarters to 11 dollars
 A) 3:11 B) 3:44 C) 44:3 D) 11:3 183) _____

- 184) 7 nickels to 9 dollars
 A) 7:9 B) 7:180 C) 9:7 D) 180:7 184) _____

- 185) 4 miles to 20 feet
 A) 1056:1 B) 20:4 C) 1:1056 D) 4:20 185) _____

Solve the proportion for the variable by cross-multiplying.

- 186) $\frac{x}{57} = \frac{4}{19}$
 A) $x = \frac{4}{3}$ B) $x = 16$ C) $x = 12$ D) $x = \frac{1083}{4}$ 186) _____

- 187) $\frac{7}{x} = \frac{0.7}{6.3}$
 A) $x = 63$ B) $x = \frac{441}{100}$ C) $x = \frac{441}{10}$ D) $x = \frac{49}{10}$ 187) _____

- 188) $\frac{3.9}{n} = \frac{1.2}{5.2}$
 A) $n = 0.1$ B) $n = 169.0$ C) $n = 16.9$ D) $n = 0.6$ 188) _____

- 189) $\frac{x}{8.3} = \frac{0.07}{9}$
 A) $x = 0.06$ B) $x = 15.49$ C) $x = 1067.14$ D) $x = 5.23$ 189) _____

Write a proportion that can be used to solve the problem. Then solve the equation to obtain the answer.

- 190) The ratio of a quarterback's completed passes to attempted passes is 5 : 7. If he attempted 21 passes, find how many passes he completed. Round to the nearest whole number.
 A) 29 passes B) 7 passes C) 15 passes D) 3 passes 190) _____

- 191) The ratio of a basketball player's completed free throws to attempted free throws is 4 : 7. If she completed 20 free throws, find how many free throws she attempted. Round to the nearest whole number. 191) _____
 A) 35 free throws B) 5 free throws C) 11 free throws D) 4 free throws
- 192) It takes Kim 22 minutes to type and spell check 10 pages of a manuscript. Find how long it takes her to type and spell check 55 pages. Round to the nearest whole number. 192) _____
 A) 22 minutes B) 121 minutes C) 25 minutes D) 1210 minutes
- 193) It takes Bill 40 minutes to type and spell check 14 pages. Find how many pages he can type and spell check in 5.5 hours. Round to the nearest tenth. 193) _____
 A) 942.9 pages B) 77 pages C) 192.5 pages D) 115.5 pages
- 194) On an architect's blueprint, 1 inch corresponds to 4 feet. Find the length of a wall represented by a line $4\frac{1}{2}$ inches long on the blueprint. Round to the nearest tenth. 194) _____
 A) 12.5 feet B) 8.9 feet C) 18 feet D) 112.5 feet
- 195) It is recommended that there be at least 11.5 square feet of floor space in a classroom for every student in the class. Find the minimum floor space that 48 students require. Round to the nearest tenth. 195) _____
 A) 24.0 square feet B) 552 square feet
 C) 11.5 square feet D) 417.4 square feet
- 196) It is recommended that there be at least 10.85 square feet of ground space in a garden for every newly planted shrub. A garden is 18.6 feet by 21 feet. Find the maximum number of shrubs the garden can accommodate. 196) _____
 A) 111 shrubs B) 36 shrubs C) 3 shrubs D) 12 shrubs
- 197) It is recommended that there be at least 17 square feet of work space for every person in a conference room. A certain conference room is 16 feet by 12 feet. Find the maximum number of people the room can accommodate. 197) _____
 A) 31 people B) 11 people C) 12 people D) 21 people
- 198) A bag of fertilizer covers 1500 square feet of lawn. Find how many bags of fertilizer should be purchased to cover a rectangular lawn 430 feet by 70 feet. 198) _____
 A) 21 bags B) 20 bags C) 2006 bags D) 201 bags

Determine the ratio and write the ratio as some quantity to 1.

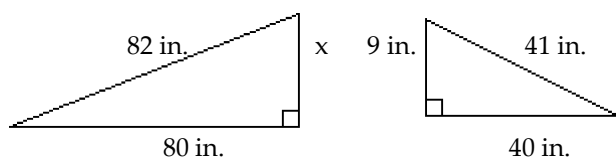
- 199) According to a study, each week the average elementary child spends 17 hours watching television, 2 hours reading books, and 5 hours playing outside. What is the ratio of number of hours of television watched to the number of hours reading? 199) _____
 A) 17:2; 8.5:1 B) 17:15; 1.13:1 C) 17:5; 3.4:1 D) 2:17; 0.12:1
- 200) After a recent poll of registered voters in Grant County it is determined that 48% plan on voting for the the Republican candidate for governor, 32% plan on voting for the Democrat candidate, and 20% were undecided. What is the ratio of Republican voters to Democrat voters? 200) _____
 A) 16:1 B) 48:20; 2.4:1 C) 3:2; 1.5:1 D) 2:3; 0.67:1

Use a proportion to make the conversion. Round answers to two decimal places.

- 201) Convert 37,064 feet to miles. 201) _____
 A) 14.25 mi B) 195,697,920 mi C) 7.02 mi D) 0.14 mi
- 202) In a finite mathematics class, for a particular test, we find that 1 standard deviation equals 8 points. 202) _____
 How many points equal 4.25 standard deviations?
 A) 34 points B) 0.53 points C) 1.88 points D) 5.31 points

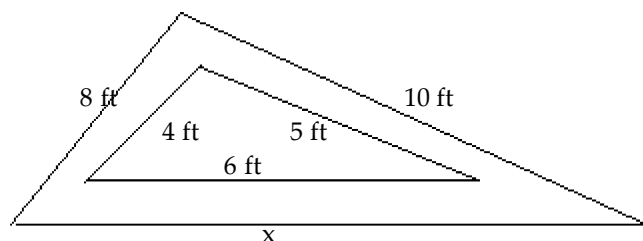
The following figures are similar. For the pair, find the length of the side indicated by x.

- 203) 203) _____



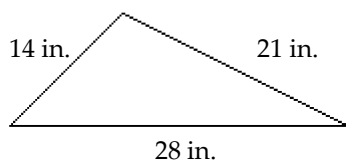
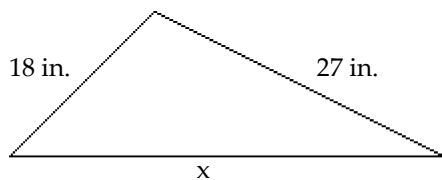
- A) 27 in. B) 18 in. C) 9 in. D) 13 in.

- 204) 204) _____



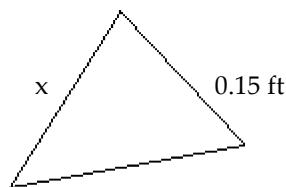
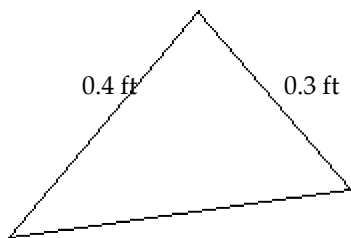
- A) 14 ft B) 12 ft C) 18 ft D) 6 ft

- 205) 205) _____



- A) 36 in. B) 28 in. C) 45 in. D) 34 in.

206)



A) 0.2 ft

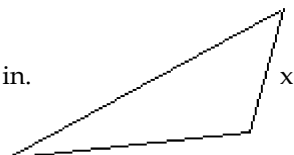
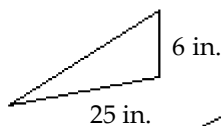
B) 2 ft

C) 0.1125 ft

D) 0.8 ft

206) _____

207)



A) 150 in.

B) 15 in.

C) 2.4 in.

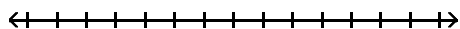
D) 0.24 in.

207) _____

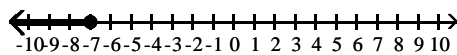
Solve the inequality. Graph the solution on a number line and represent the solution in interval notation when possible.

208) $-3x \geq 21$

208) _____

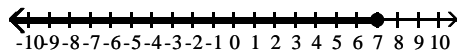


A) $x \leq -7$



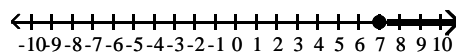
$(-\infty, -7]$

C) $x \leq 7$



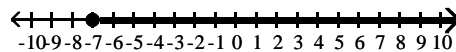
$(-\infty, 7]$

B) $x \geq 7$



$[7, \infty)$

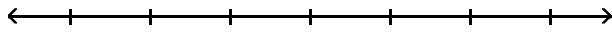
D) $x \geq -7$



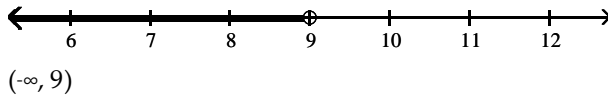
$[-7, \infty)$

209) $x - 12 < -3$

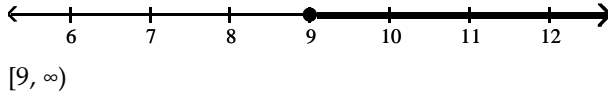
209) _____



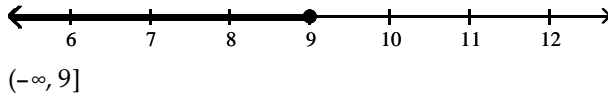
A) $x < 9$



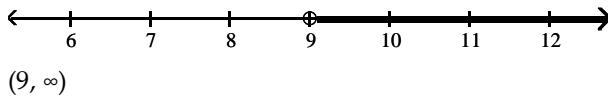
B) $x \geq 9$



C) $x \leq 9$

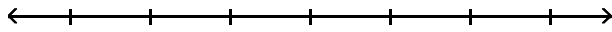


D) $x > 9$

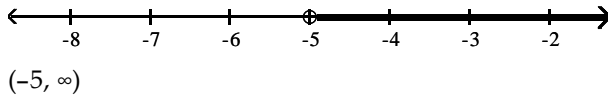


210) $8x - 6 > 7x - 11$

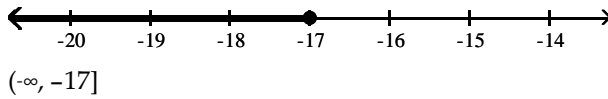
210) _____



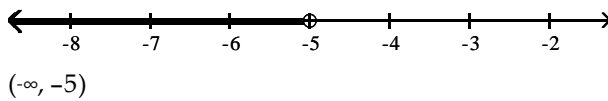
A) $x > -5$



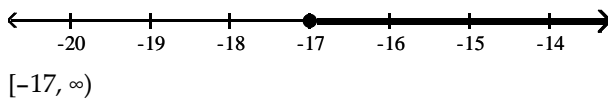
B) $x \leq -17$



C) $x < -5$

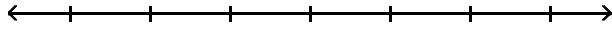


D) $x \geq -17$

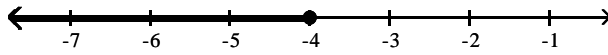


211) $8x + 12 \leq 7x + 8$

211) _____

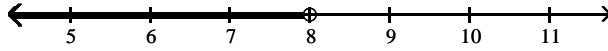


A) $x \leq -4$



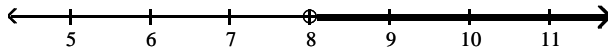
$(-\infty, -4]$

B) $x < 8$



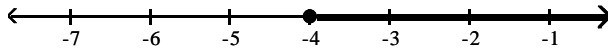
$(-\infty, 8)$

C) $x > 8$



$(8, \infty)$

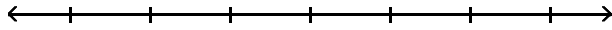
D) $x \geq -4$



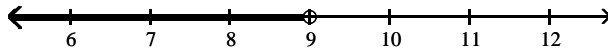
$[-4, \infty)$

212) $9x + 8 \geq 8x + 2$

212) _____

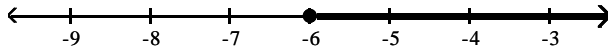


A) $x < 9$



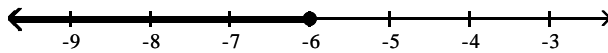
$(-\infty, 9)$

B) $x \geq -6$



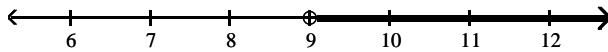
$[-6, \infty)$

C) $x \leq -6$



$(-\infty, -6]$

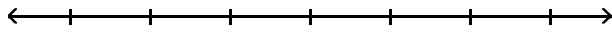
D) $x > 9$



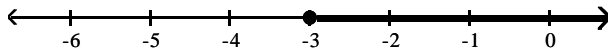
$(9, \infty)$

213) $x - 2 < -5$

213) _____

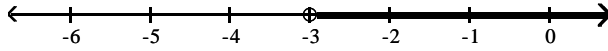


A) $x \geq -3$



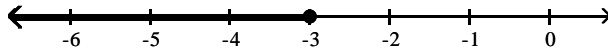
$[-3, \infty)$

B) $x > -3$



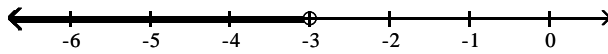
$(-3, \infty)$

C) $x \leq -3$



$(-\infty, -3]$

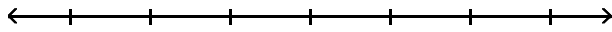
D) $x < -3$



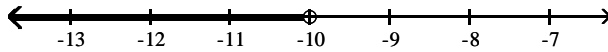
$(-\infty, -3)$

214) $10 - 10x + 2 \geq -11x + 7$

214) _____

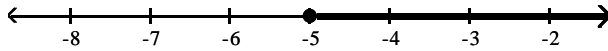


A) $x < -10$



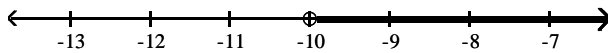
$(-\infty, -10)$

B) $x \geq -5$



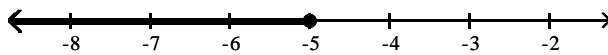
$[-5, \infty)$

C) $x > -10$



$(-10, \infty)$

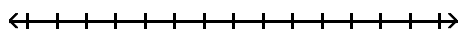
D) $x \leq -5$



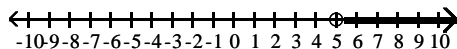
$(-\infty, -5]$

215) $3x + 7 < 22$

215) _____

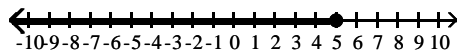


A) $x > 5$



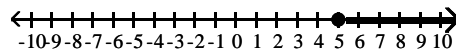
$(5, \infty)$

C) $x \leq 5$



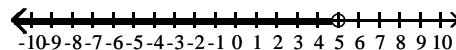
$(-\infty, 5]$

B) $x \geq 5$



$[5, \infty)$

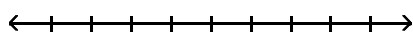
D) $x < 5$



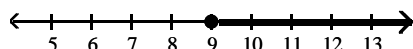
$(-\infty, 5)$

216) $-5x + 8 - 5x < 4 - 12x + 6$

216) _____

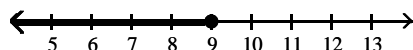


A) $x \geq 9$



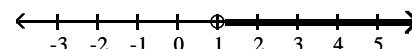
$[9, \infty)$

C) $x \leq 9$



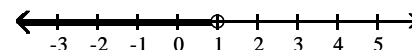
$(-\infty, 9]$

B) $x > 1$



$(1, \infty)$

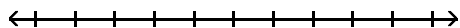
D) $x < 1$



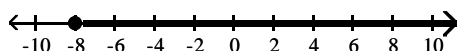
$(-\infty, 1)$

217) $10x - 5 \leq 4x - 13$

217) _____

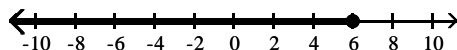


A) $x \geq -8$



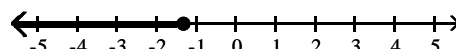
$[-8, \infty)$

C) $x \leq 6$



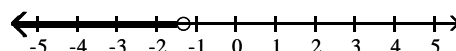
$(-\infty, 6]$

B) $x \leq -\frac{4}{3}$



$(-\infty, -\frac{4}{3}]$

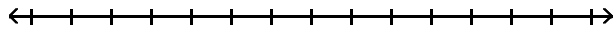
D) $x < -\frac{4}{3}$



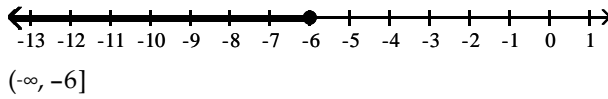
$(-\infty, -\frac{4}{3})$

218) $-6(6x - 12) < -42x + 36$

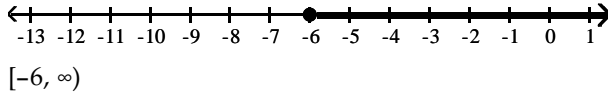
218) _____



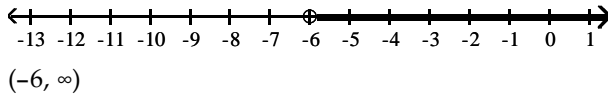
A) $x \leq -6$



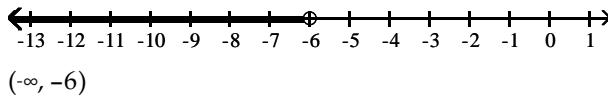
B) $x \geq -6$



C) $x > -6$

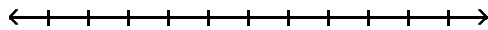


D) $x < -6$

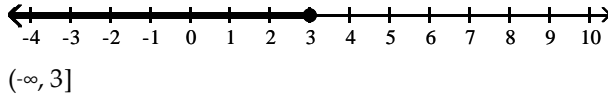


219) $28x + 12 > 4(6x + 6)$

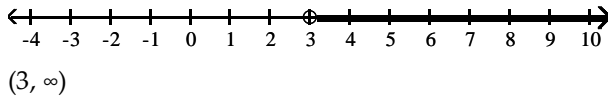
219) _____



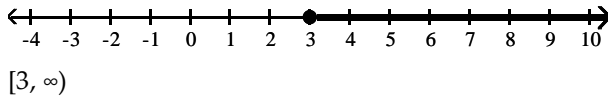
A) $x \leq 3$



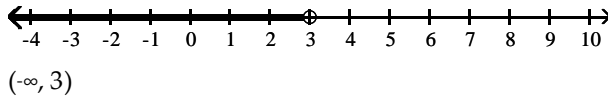
B) $x > 3$



C) $x \geq 3$

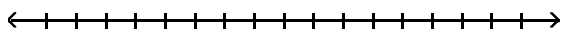


D) $x < 3$

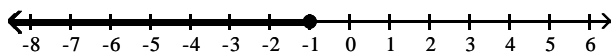


220) $-35x + 25 \leq -5(6x - 6)$

220) _____

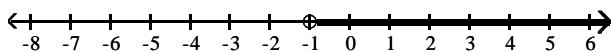


A) $x \leq -1$



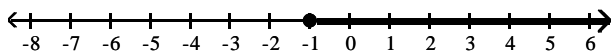
$(-\infty, -1]$

B) $x > -1$



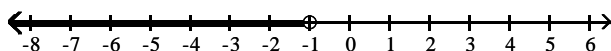
$(-1, \infty)$

C) $x \geq -1$



$[-1, \infty)$

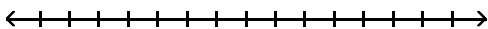
D) $x < -1$



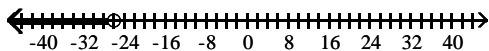
$(-\infty, -1)$

221) $\frac{x}{6} - \frac{1}{6} \leq \frac{x}{4} + 2$

221) _____

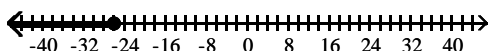


A) $x < -26$



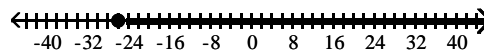
$(-\infty, -26)$

C) $x \leq -26$



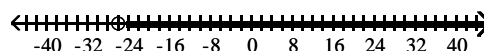
$(-\infty, -26]$

B) $x \geq -26$



$[-26, \infty)$

D) $x > -26$



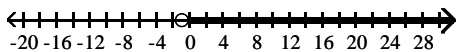
$(-26, \infty)$

222) $\frac{x-2}{8} \geq \frac{x-4}{12} + \frac{1}{24}$

222) _____

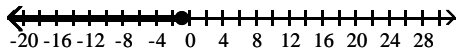


A) $x > -1$



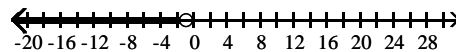
$(-1, \infty)$

C) $x \leq -1$



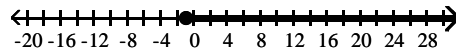
$(-\infty, -1]$

B) $x < -1$



$(-\infty, -1)$

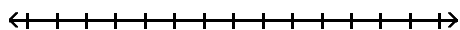
D) $x \geq -1$



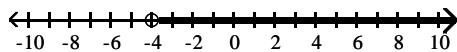
$[-1, \infty)$

223) $1.4x + 16.4 < 4.1x + 5.6$

223) _____

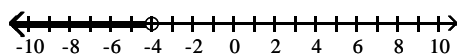


A) $x > -4$



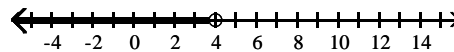
$(-4, \infty)$

C) $x < -4$



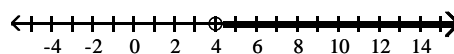
$(-\infty, -4)$

B) $x < 4$



$(-\infty, 4)$

D) $x > 4$



$(4, \infty)$

Use the table to answer the question.

224) The table gives the average high monthly temperature (in °F) for one year in Middleville.

224) _____

Jan	Feb	Dec	Nov	Oct	Mar	Apr	Sep	May	Jun	Jul	Aug
27°	33°	34°	36°	42°	45°	48°	60°	66°	75°	81°	85°

In what months was the average high temperature $\leq 42^\circ\text{F}$?

A) Jan, Feb Dec, Nov, Oct

B) Mar, Apr, Sep, May, Jun, Jul, Aug

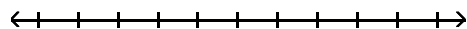
C) Jan, Feb Dec, Nov, Oct, Mar

D) Jan, Feb Dec, Nov

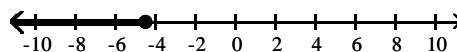
Solve the inequality. Graph the solution on a number line and represent the solution in interval notation when possible.

225) $x + 5 \geq x - 4$

225) _____

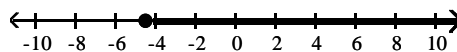


A) $x \leq -\frac{9}{2}$



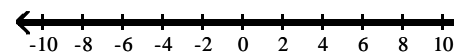
$(-\infty, -\frac{9}{2}]$

C) $x \geq -\frac{9}{2}$



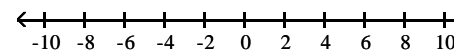
$[-\frac{9}{2}, \infty)$

B) all real numbers



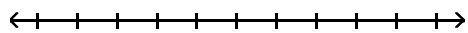
$(-\infty, \infty)$

D) no solution



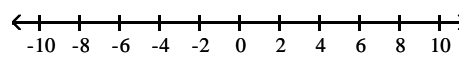
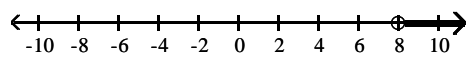
226) $-4(-2 - x) < 6x + 19 - 11 - 2x$

226) _____



A) $x > 8$

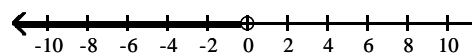
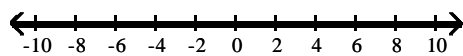
B) no solution



$(8, \infty)$

C) all real numbers

D) $x < 0$



$(-\infty, \infty)$

$(-\infty, 0)$

Answer Key

Testname: UNTITLED91

- 1) A
- 2) B
- 3) D
- 4) D
- 5) A
- 6) B
- 7) A
- 8) B
- 9) B
- 10) A
- 11) A
- 12) B
- 13) C
- 14) B
- 15) D
- 16) C
- 17) C
- 18) A
- 19) B
- 20) A
- 21) A
- 22) C
- 23) C
- 24) A
- 25) B
- 26) D
- 27) D
- 28) D
- 29) A
- 30) C
- 31) D
- 32) D
- 33) C
- 34) D
- 35) C
- 36) A
- 37) A
- 38) D
- 39) C
- 40) C
- 41) D
- 42) C
- 43) D
- 44) A
- 45) A
- 46) B
- 47) B
- 48) A
- 49) A
- 50) B

Answer Key

Testname: UNTITLED91

- 51) A
- 52) A
- 53) B
- 54) A
- 55) A
- 56) B
- 57) B
- 58) D
- 59) A
- 60) C
- 61) C
- 62) D
- 63) B
- 64) C
- 65)
- 66) C
- 67) C
- 68) D
- 69) D
- 70) D
- 71) B
- 72) D
- 73) A
- 74) D
- 75) C
- 76) D
- 77) D
- 78) A
- 79) B
- 80) D
- 81) B
- 82) D
- 83) B
- 84) D
- 85) D
- 86) A
- 87)
- 88) B
- 89) A
- 90) A
- 91) C
- 92) D
- 93) C
- 94) B
- 95) C
- 96) A
- 97) B
- 98) D
- 99) D
- 100) C

Answer Key

Testname: UNTITLED91

- 101) A
- 102) B
- 103) A
- 104) C
- 105) B
- 106) D
- 107) C
- 108) A
- 109) C
- 110) D
- 111) C
- 112) C
- 113) C
- 114) B
- 115) A
- 116) A
- 117) A
- 118) B
- 119) C
- 120) C
- 121) B
- 122) B
- 123) D
- 124) C
- 125) A
- 126) A
- 127) A
- 128) C
- 129) C
- 130) C
- 131) B
- 132) A
- 133) B
- 134) B
- 135) B
- 136) D
- 137) B
- 138) B
- 139) B
- 140) D
- 141) C
- 142) D
- 143) A
- 144) C
- 145) D
- 146) D
- 147) C
- 148) A
- 149) D
- 150) A

Answer Key

Testname: UNTITLED91

- 151) B
- 152) D
- 153) C
- 154) A
- 155) A
- 156) B
- 157) C
- 158) D
- 159) A
- 160) B
- 161) B
- 162) B
- 163) C
- 164) C
- 165) A
- 166) C
- 167) C
- 168) A
- 169) D
- 170) B
- 171) B
- 172) A
- 173) B
- 174) A
- 175) A
- 176) B
- 177) C
- 178) D
- 179) B
- 180) D
- 181) C
- 182) B
- 183) B
- 184) B
- 185) A
- 186) C
- 187) A
- 188) C
- 189) A
- 190) C
- 191) A
- 192) B
- 193) D
- 194) C
- 195) B
- 196) B
- 197) B
- 198) A
- 199) A
- 200) C

Answer Key

Testname: UNTITLED91

- 201) C
- 202) A
- 203) B
- 204) B
- 205) A
- 206) A
- 207) B
- 208) A
- 209) A
- 210) A
- 211) A
- 212) B
- 213) D
- 214) B
- 215) D
- 216) D
- 217) B
- 218) D
- 219) B
- 220) C
- 221) B
- 222) D
- 223) D
- 224) A
- 225) B
- 226) B