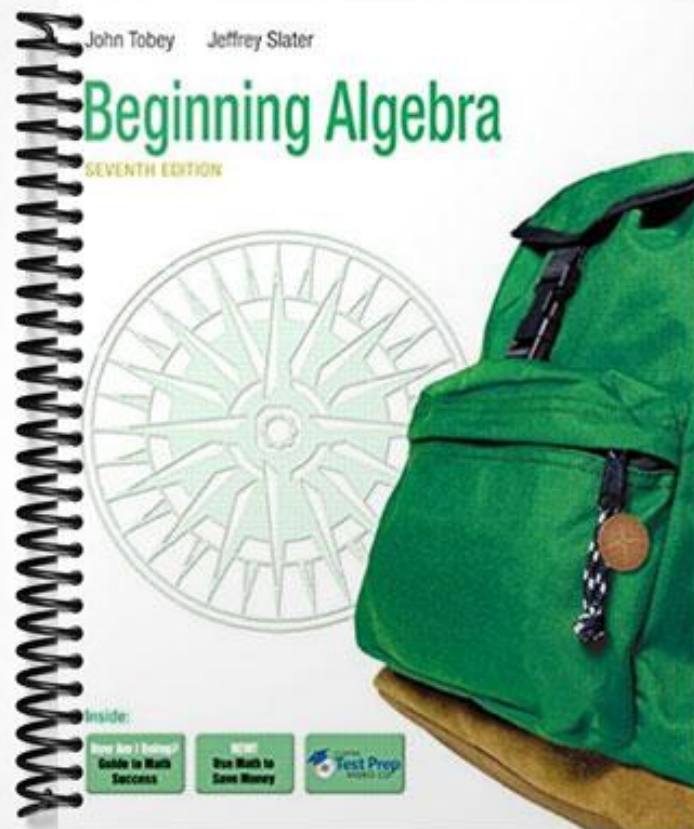


TEST BANK



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

Solve for x. Check your answers.

1) $x - 13 = 8$ 1) _____
A) $x = 21$ B) $x = 5$ C) $x = -5$ D) $x = -21$

2) $-13 = x - 10$ 2) _____
A) $x = -3$ B) $x = 23$ C) $x = -23$ D) $x = 3$

3) $x - 5 = 10$ 3) _____
A) $x = 5$ B) $x = 15$ C) $x = -15$ D) $x = -5$

4) $x - 13 = 16$ 4) _____
A) $x = -29$ B) $x = 29$ C) $x = 3$ D) $x = -3$

5) $13 = x + 16$ 5) _____
A) $x = 29$ B) $x = 3$ C) $x = -29$ D) $x = -3$

6) $x - 13 = 6$ 6) _____
A) $x = -7$ B) $x = -19$ C) $x = 19$ D) $x = -78$

7) $11 = x + 20$ 7) _____
A) $x = 31$ B) $x = 9$ C) $x = 220$ D) $x = -9$

8) $1 + 11 + x = 6 + 2$ 8) _____
A) $x = 20$ B) $x = -4$ C) $x = 18$ D) $x = -8$

9) $3 - 14 + 1 = 8 + x - 7$ 9) _____
A) $x = 5$ B) $x = 19$ C) $x = -25$ D) $x = -11$

10) $15 - 3 = x + 12$ 10) _____
A) $x = 0$ B) $x = 6$ C) $x = 30$ D) $x = 24$

Determine if the given solution is correct. If it is not, find the solution.

11) Is -10 the solution to $-13 - 6 = x - 7$? 11) _____
A) yes B) no; $x = -14$ C) no; $x = -26$ D) no; $x = -12$

12) Is -4 the solution to $x + 4 = 1 - 1$? 12) _____
A) no; $x = -2$ B) yes C) no; $x = 6$ D) no; $x = 4$

13) Is 18 the solution to $-1 + x = 18$? 13) _____
A) no; $x = 17$ B) no; $x = 19$ C) no; $x = -19$ D) yes

Find the value of x that satisfies the equation.

14) $-3.5 + x = 17$ 14) _____
A) $x = 20$ B) $x = 13$ C) $x = 20.5$ D) $x = 13.5$

15) $7.5 = 10 - x$ 15) _____
A) $x = 2.5$ B) $x = 2$ C) $x = 17$ D) $x = 17.5$

16) $3.6 + x + 1.8 = 2.6$ 16) _____
A) $x = 8$ B) $x = 4.4$ C) $x = 0.8$ D) $x = -2.8$

17) $1.3 = 22.4 - x$ 17) _____
 A) $x = 23.7$ B) $x = 20.6$ C) $x = 21.1$ D) $x = 23.2$

18) $2.3 + x = 10.2$ 18) _____
 A) $x = 12.5$ B) $x = 12$ C) $x = 7.4$ D) $x = 7.9$

19) $\frac{1}{2} + x = 12$ 19) _____
 A) $x = 23$ B) $x = \frac{23}{2}$ C) $x = \frac{11}{2}$ D) $x = \frac{25}{2}$

20) $x + \frac{2}{9} = \frac{5}{9}$ 20) _____
 A) $x = \frac{1}{3}$ B) $x = \frac{4}{9}$ C) $x = 3$ D) $x = \frac{7}{9}$

21) $x - \frac{1}{4} = \frac{3}{4}$ 21) _____
 A) $x = 4$ B) $x = \frac{1}{2}$ C) $x = \frac{5}{8}$ D) $x = 1$

22) $x + 2 = 2\frac{1}{2}$ 22) _____
 A) $x = 2$ B) $x = \frac{9}{2}$ C) $x = \frac{1}{2}$ D) $x = 1$

23) $x - \frac{9}{11} = -\frac{5}{11}$ 23) _____
 A) $x = \frac{14}{11}$ B) $x = -\frac{14}{11}$ C) $x = \frac{4}{11}$ D) $x = -\frac{4}{11}$

24) $\frac{1}{2} - \frac{4}{5} = x - \frac{4}{15}$ 24) _____
 A) $x = -\frac{1}{30}$ B) $x = -\frac{17}{30}$ C) $x = \frac{7}{30}$ D) $x = \frac{47}{30}$

Solve for x. Be sure to reduce your answer. Check your solution.

25) $\frac{1}{8}x = -5$ 25) _____
 A) $x = -1$ B) $x = 3$ C) $x = -40$ D) $x = 2$

26) $\frac{1}{12}x = 0$ 26) _____
 A) $x = 1$ B) $x = -12$ C) $x = 0$ D) $x = 12$

27)

$$\frac{x}{3} = 4 \quad 27)$$

A) $x = 1$

B) $x = 6$

C) $x = 7$

D) $x = 12$

$$28) \frac{1}{6}x = \frac{2}{3}$$

A) $x = -4$

B) $x = 9$

C) $x = -6$

D) $x = 10$

28) _____

$$29) 2x = -8$$

A) $x = -10$

B) $x = -4$

C) $x = 10$

D) $x = 1$

29) _____

$$30) -56.0 = -8.0x$$

A) $x = 48$

B) $x = 2$

C) $x = -48$

D) $x = 7$

30) _____

$$31) -7x = -49$$

A) $x = -42$

B) $x = 7$

C) $x = 2$

D) $x = 42$

31) _____

$$32) -x = 6$$

A) $x = -1$

B) $x = 6$

C) $x = -6$

D) $x = 0$

32) _____

Determine if the given solution is correct. If it is not, find the solution.

$$33) \text{ Is } -16 \text{ the solution to } -x = 16$$

A) no; $x = 16$

B) no; $x = -1$

C) no; $x = 0$

D) yes

33) _____

$$34) \text{ Is } \frac{5}{11} \text{ the solution to } 11x = -6$$

A) no; $x = -\frac{6}{11}$

B) yes

C) no; $x = -66$

D) no; $x = -\frac{11}{6}$

34) _____

Find the value of the variable that satisfies the equation.

$$35) 2x + x = 18$$

A) $x = 6$

B) $x = 9$

C) $x = \frac{19}{2}$

D) $x = 5$

35) _____

$$36) -4x + x = -27$$

A) $x = -10$

B) $x = 9$

C) $x = 10$

D) $x = -9$

36) _____

$$37) -4x - 16x = -15$$

A) $x = \frac{3}{4}$

B) $x = \frac{4}{3}$

C) $x = 300$

D) $x = 5$

37) _____

$$38) 5x + 18x = 11$$

A) $x = -12$

B) $x = \frac{11}{23}$

C) $x = \frac{23}{11}$

D) $x = 253$

38) _____

$$39) \frac{x}{5} + 2 = 4$$

A) $x = 10$

B) $x = 7$

C) $x = 30$

D) $x = 32$

39) _____

$$40) 8x + 7 = 39$$

40) _____

A) $x = 28$

B) $x = 4$

C) $x = 2$

D) $x = 24$

41) $6x - 4 = 26$

A) $x = 8$

B) $x = 28$

C) $x = 5$

D) $x = 24$

41) _____

42) $32 = 9x - 4$

A) $x = 27$

B) $x = 7$

C) $x = 31$

D) $x = 4$

42) _____

43) $\frac{1}{3}x - \frac{1}{3} = -5$

A) $x = 16$

B) $x = 14$

C) $x = -16$

D) $x = -14$

43) _____

44) $\frac{1}{3}x - 4 = 1$

A) $x = -9$

B) $x = 15$

C) $x = 9$

D) $x = -15$

44) _____

45) $2x - 10 = -9 - 8x$

A) $x = \frac{1}{10}$

B) $x = 10$

C) $x = \frac{6}{19}$

D) $x = -10$

45) _____

46) $-7x + 6 = -1 - 9x$

A) $x = -\frac{7}{2}$

B) $x = -\frac{16}{5}$

C) $x = -\frac{2}{7}$

D) $x = \frac{2}{7}$

46) _____

47) $-9x + 1 + 7x = -3x + 6$

A) $x = -6$

B) $x = -1$

C) $x = 6$

D) $x = 5$

47) _____

48) $63 - 7x = 2x$

A) $x = 6$

B) $x = -6$

C) $x = 7$

D) $x = -7$

48) _____

49) $5x = 13x + 40$

A) $x = -\frac{1}{5}$

B) $x = \frac{20}{9}$

C) $x = 8$

D) $x = -5$

49) _____

Solve for the variable.

50) $-1(x + 8) = 18$

A) $x = -10$

B) $x = 26$

C) $x = 10$

D) $x = -26$

50) _____

51) $5(x + 7) = 6(x - 7)$

A) $x = 77$

B) $x = 7$

C) $x = -77$

D) $x = -7$

51) _____

52) $5(2x - 4) = 9(x + 2)$

A) $x = -2$

B) $x = 3$

C) $x = 38$

D) $x = 2$

52) _____

53) $-5(x - 6) - (-6x + 3) = -4$

A) $x = 31$

B) $x = -31$

C) $x = -5$

D) $x = 23$

53) _____

54) $\frac{4(7-x)}{3} = x$

A) _____

B) _____

C) _____

54) _____

B) $x = 4$

C) $x = 7$

D) $x = -4$

55) $\frac{3(y-2)}{5} = 1 - 3y$
 A) $y = \frac{11}{6}$

B) $y = \frac{11}{18}$

C) $y = \frac{7}{6}$

D) $y = -\frac{11}{18}$

55) _____

56) $x - \frac{1}{2}x - 5 = 1$
 A) $x = -8$

B) $x = -12$

C) $x = 8$

D) $x = 12$

56) _____

57) $\frac{2}{5}x - \frac{1}{3}x = 2$
 A) $x = 60$

B) $x = 30$

C) $x = -30$

D) $x = -60$

57) _____

58) $\frac{1}{4}x - \frac{3}{8}x = 3$
 A) $x = -24$

B) $x = 21$

C) $x = 24$

D) $x = -21$

58) _____

59) $\frac{1}{5}(x+6) = \frac{1}{7}(x+8)$
 A) $x = 1$

B) $x = -12$

C) $x = -1$

D) $x = 3$

59) _____

60) $\frac{1}{2}x - \frac{1}{2} = -6$
 A) $x = -11$

B) $x = 13$

C) $x = -13$

D) $x = 11$

60) _____

61) $\frac{4x+9}{5} + \frac{7}{5} = -\frac{7x}{6}$
 A) $x = \frac{12}{59}$

B) $x = -\frac{12}{59}$

C) $x = \frac{96}{11}$

D) $x = -\frac{96}{59}$

61) _____

62) $-\frac{1}{8}(x-16) - \frac{1}{8}(x-8) = x - 8$
 A) $x = \frac{28}{5}$

B) $x = \frac{44}{5}$

C) $x = 4$

D) $x = \frac{36}{5}$

62) _____

63) $\frac{1}{7}x - (x - \frac{5}{6}) = \frac{1}{42}(x - 6)$
 A) $x = -\frac{41}{47}$

B) $x = \frac{41}{35}$

C) $x = \frac{41}{37}$

D) $x = -\frac{29}{37}$

63) _____

64) $-0.04y + 0.11(9000 - y) = 0.35y$
 A) $y = 5940$

B) $y = 4950$

C) $y = 1980$

D) $y = 495$

64) _____

65) $0.5(40) + 0.7x = 0.6(40 + x)$

65) _____

A) $x = 40$

B) $x = 50$

C) $x = 30$

D) $x = 20$

66) $0.8x - 0.5(80 + x) = -0.35(80)$

A) $x = 40$

B) $x = 20$

C) $x = 30$

D) $x = 50$

66) _____

67) $1.2x - 3.7 = 0.4x + 0.62$

A) $x = 5.4$

B) $x = -0.185$

C) $x = 5.94$

D) $x = 5.5$

67) _____

68) $1.3x + 3.3 = 0.8x + 0.05$

A) $x = -6.565$

B) $x = -0.154$

C) $x = -6.5$

D) $x = -6.51$

68) _____

Solve.69) The formula for the perimeter of a rectangle is $P = 2L + 2W$. If the length, L , is 4 meters and the width, W , is 5 meters find the perimeter, P , of this rectangle.

A) $P = 9$ m

B) $P = 18$ m

C) $P = 13$ m

D) $P = 40$ m

69) _____

70)

The formula for the area of a triangle is $A = \frac{1}{2}bh$. If the base, b , is 13 in. and the height, h , is 12 in. find the area of this triangle.

A) $A = 25^2$ in.²

B) $A = 78$ in.²

C) $A = 25$ in.²

D) $A = 156$ in.²

70) _____

71) The formula for distance is $d = rt$. If the rate of speed, r , is 3 miles per hour and the time traveled, t , is 5 hours, find the distance.

A) $d = 15$ mi

B) $d = 0.2$ mi

C) $d = 12$ mi

D) $d = 18$ mi

71) _____

72) The formula for the perimeter of a rectangle is $P = 2L + 2W$. If the perimeter, P , is 26 feet and the width, W , is 5 feet find the length, L , of this rectangle.

A) $L = 8$ ft

B) $L = 13$ ft

C) $L = 21$ ft

D) $L = 10.5$ ft

72) _____

73)

The formula for the volume of a cone is $V = \frac{1}{3}Bh$. If the Volume, V , is 81 cubic centimeters and the height, h , is 9 centimeters, find the base, B , of this cone.

A) $B = 729$ cm²

B) $B = 9$ cm²

C) $B = 27$ cm²

D) $B = 90$ cm²

73) _____

74) The formula for calculating simple interest is $I = prt$. If the amount of interest, I , is \$39.60, the principal (amount of money invested), p , is \$220.00, and the rate of interest, r , is 3%, find the amount of time, t .

A) $t = 261.36$ yr

B) $t = 6$ yr

C) $t = 0.6$ yr

D) $t = 2.6136$ yr

74) _____

75)

The formula for the area of a trapezoid is $A = \frac{1}{2}(b + B)h$. If the area, A , is 54 square meters, and the bases, b and B , are 16 meters and 20 meters, find the height, h , of this trapezoid.

A) $h = 36$ m

B) $h = 3$ m

C) $h = 320$ m

D) $h = 18$ m

75) _____

Solve for the indicated variable.

76)

 $A = \frac{1}{2}bh$ for b

A) $b = \frac{2A}{h}$

B) $b = \frac{A}{2h}$

C) $b = \frac{h}{2A}$

D) $b = \frac{Ah}{2}$

76) _____

77) $S = 2\pi rh + 2\pi r^2$ for h 77) _____
 A) $h = S - r$ B) $h = \frac{S - 2\pi r^2}{2\pi r}$ C) $h = \frac{S}{2\pi r} - 1$ D) $h = 2\pi(S - r)$

78) $V = \frac{1}{3}Bh$ for h 78) _____
 A) $h = \frac{V}{3B}$ B) $h = \frac{B}{3V}$ C) $h = \frac{3B}{V}$ D) $h = \frac{3V}{B}$

79) $P = S_1 + S_2 + S_3$ for S_3 79) _____
 A) $S_3 = P + S_1 + S_2$ B) $S_3 = S_1 + S_2 - P$ C) $S_3 = S_1 + P - S_2$ D) $S_3 = P - S_1 - S_2$

80) $F = \frac{9}{5}C + 32$ for C 80) _____
 A) $C = \frac{5}{9}(F - 32)$ B) $C = \frac{5}{F - 32}$ C) $C = \frac{F - 32}{9}$ D) $C = \frac{9}{5}(F - 32)$

81) $d = rt$ for r 81) _____
 A) $r = \frac{t}{d}$ B) $r = \frac{d}{t}$ C) $r = d t$ D) $r = d - t$

82) $P = 2L + 2W$ for W 82) _____
 A) $W = \frac{P - 2L}{2}$ B) $W = \frac{P - L}{2}$ C) $W = P - L$ D) $W = d - 2L$

Solve the problem using a known formula.

83) The width of a room is 8 feet, and the area of the room is 88 square feet. Find the room's length. 83) _____
 A) 11 ft B) 80 ft C) 36 ft D) 704 ft

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

85) During a chemistry experiment, Ken recorded the temperature of a liquid to be 16°C . Convert this temperature to Fahrenheit. 85) _____
 A) $\frac{4}{5} 60^\circ \text{F}$ B) $\frac{8}{9} - 8^\circ \text{F}$ C) $\frac{8}{9} 40^\circ \text{F}$ D) $\frac{4}{5} 28^\circ \text{F}$

86) You are varnishing the background for a right-triangularly shaped mural. The base of the mural is 3 meters and the height of the mural is 9 meters. How many cans of varnish will you need if each can covers 10 square meters? 86) _____
 A) 6 cans of varnish B) 3 cans of varnish
 C) 14 cans of varnish D) 2 cans of varnish

87) Jim runs one time around a circular track that has a radius of 5 kilometers, and Chris runs two times around a circular track with a radius of 3 kilometers. Who ran the farther distance? (Use 3.14 as an approximation) 3.14 as an approximation

mation 87)
for π .)

- A) Jim and Chris both ran the same distance.
- B) Chris ran a farther distance.
- C) Jim ran a farther distance.

88) Farmer Joe just replaced the fencing for his pig pen. He used exactly 28 feet of fencing for the rectangular shaped pen. If the length of the pen is 10 feet, what is the width of the pen?

- A) 24 ft
- B) 4 ft
- C) $\frac{4}{2\sqrt{5}}$ ft
- D) 8 ft

88) _____

89) You have a cylindrical cooking pot whose radius is 6 inches and whose height is 7 inches. How many full cans of soup will fit into the pot if each can holds 10 cubic inches of soup? (Use 3.14 as an approximation for π .)

- A) 80 cans of soup
- B) 79 cans of soup
- C) 25 cans of soup
- D) 26 cans of soup

89) _____

90) A contestant in a 22-mile race finished in 7 hours. What was her average rate during the race? (Round to the nearest tenth, if necessary.)

- A) 0.3 mph
- B) 3.1 mph
- C) 15 mph
- D) 154 mph

90) _____

91) How long would it take to drive 200 kilometers if your average rate of speed was 50 kilometers per hour?

- A) 5 hr
- B) 25 hr
- C) 4 hr
- D) 100 hr

91) _____

Replace the ? by < or >.

92) $1 ? -4$

- A) >
- B) <

92) _____

93) $-8 ? -5$

- A) >
- B) <

93) _____

94) $-0.6 ? 0.2$

- A) <
- B) >

94) _____

95) $-3 ? -4$

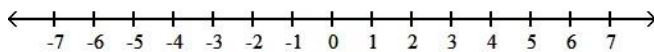
- A) <
- B) >

95) _____

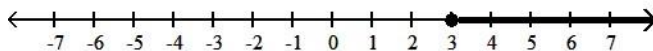
Graph the inequality on the number line.

96) $x > 3$

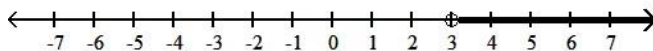
96) _____



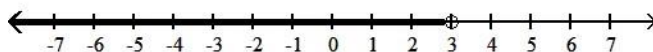
A)



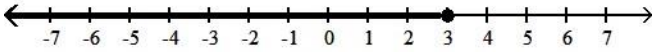
B)



C)

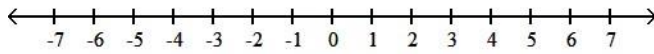


D)

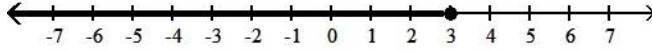


97) $x < 3$

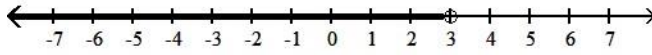
97) _____



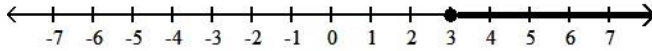
A)



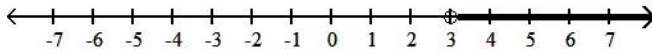
B)



C)

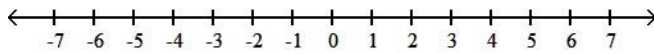


D)

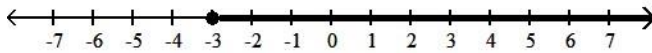


98) $x \geq -3$

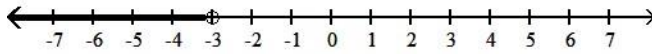
98) _____



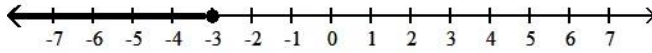
A)



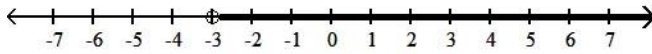
B)



C)

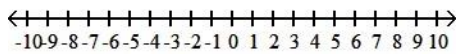


D)

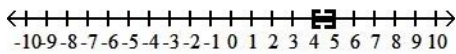


99) $x < \frac{5}{4}$

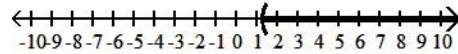
99) _____



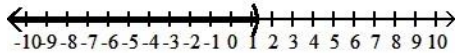
A)



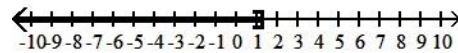
B)



C)

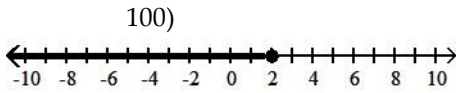


D)



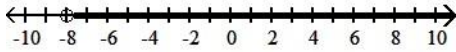
Translate each graph to an inequality using the variable x.

100)



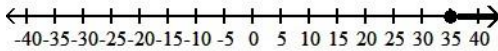
- A) $x \geq 2$ B) $x < 2$ C) $x > 2$ D) $x \leq 2$

101)



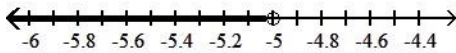
- A) $x < -8$ B) $x > -8$ C) $x \leq -8$ D) $x \geq -8$

102)



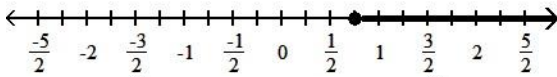
- A) $x > 35$ B) $x \geq 35$ C) $x < 35$ D) $x \leq 35$

103)



- A) $x \leq -5.0$ B) $x \geq -5.0$ C) $x > -5.0$ D) $x < -5.0$

104)



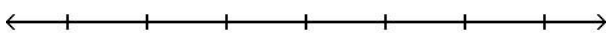
- A) $x \geq \frac{3}{4}$ B) $x \leq \frac{3}{4}$ C) $x < \frac{3}{4}$ D) $x > \frac{3}{4}$

Translate the English statement into an inequality.

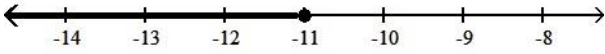
- 105) The cost of shoes must be less than \$63. (Use the variable c for the cost.) 105) _____
 A) $c > 63$ B) $c \geq 63$ C) $c \leq 63$ D) $c < 63$
- 106) The speed of the bike is more than 20 mph. (Use the variable s for the speed.) 106) _____
 A) $s > 20$ B) $s \geq 20$ C) $s \leq 20$ D) $s < 20$
- 107) The number of people the school can hold is at most 111. (Use the variable p for number of people.) 107) _____
 A) $p \geq 111$ B) $p > 111$ C) $p \leq 111$ D) $p < 111$
- 108) The rocket must reach a speed of at least 910 mph. (Use the variable V for speed.) 108) _____
 A) $V > 910$ B) $V < 910$ C) $V \geq 910$ D) $V \leq 910$

Solve the inequality. Graph the results.

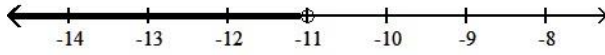
- 109) $x + 4 < -7$ 109) _____



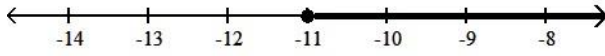
- A) $x \leq -11$



B) $x < -11$



C) $x \geq -11$

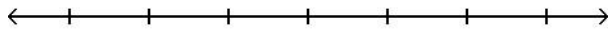


D) $x > -11$

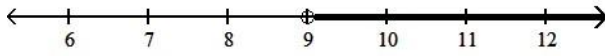


110) $8x + 8 > 7x + 17$

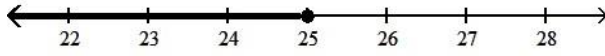
110) _____



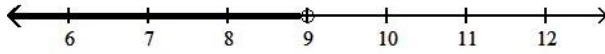
A) $x > 9$



B) $x \leq 25$



C) $x < 9$

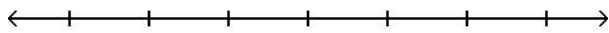


D) $x \geq 25$



111) $-3x + 8 \leq -4x + 12$

111) _____



A) $x > -3$



B) $x \geq 4$



C) $x < -3$

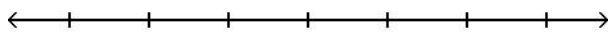


D) $x \leq 4$



112) $-4x + 7 \geq -5x + 8$

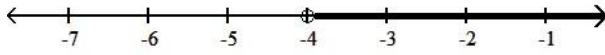
112) _____



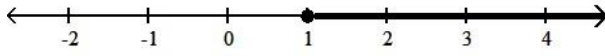
A) $x < -4$



B) $x > -4$



C) $x \geq 1$

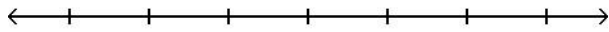


D) $x \leq 1$

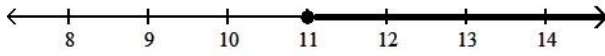


113) $x + 3 < 14$

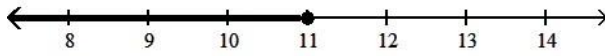
113) _____



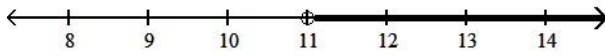
A) $x \geq 11$



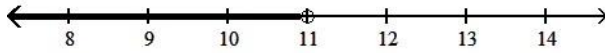
B) $x \leq 11$



C) $x > 11$

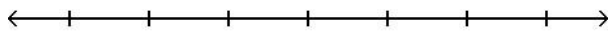


D) $x < 11$

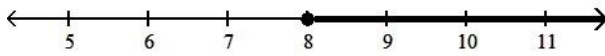


114) $12 + 12x + 7 \geq 11x + 27$

114) _____



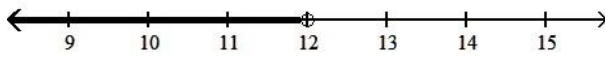
A) $x \geq 8$



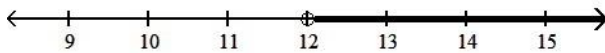
B) $x \leq 8$



C) $x < 12$

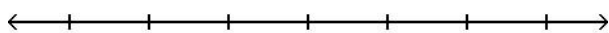


D) $x > 12$

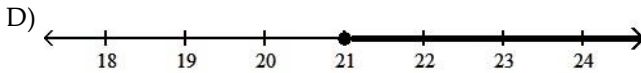
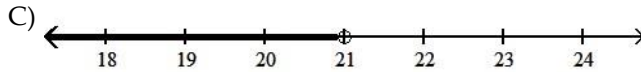
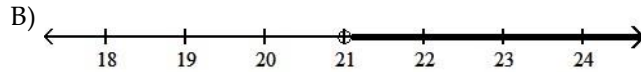
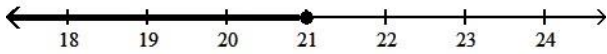


115) $\frac{x}{7} \geq 3$

115) _____

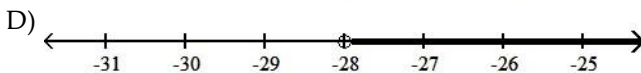
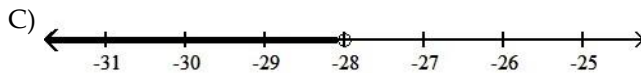
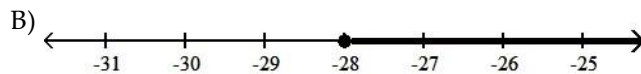
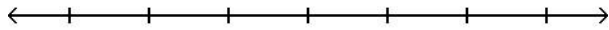


A)



116) $\frac{x}{4}$
 $-7 <$

116) _____



Solve the inequality.

117) $10x - 11 > 9x - 10$

117) _____

A) $x \leq -21$

B) $x > 1$

C) $x \geq -21$

D) $x < 1$

118) $30x + 35 > 5(5x + 4)$

118) _____

A) $x \geq -3$

B) $x > -3$

C) $x \leq -3$

D) $x < -3$

119) $-4(4x - 1) < -20x + 16$

119) _____

A) $x \geq 3$

B) $x \leq 3$

C) $x < 3$

D) $x > 3$

120) $-28x + 8 \leq -4(6x - 11)$

120) _____

A) $x \geq -9$

B) $x \leq -9$

C) $x > -9$

D) $x < -9$

121) $10x - 12 \leq 2(4x - 1)$

121) _____

A) $x \geq 5$

B) $x > 5$

C) $x \leq 5$

D) $x < 5$

122) $8x + 10 + 8x < 6 + 14x + 2$

122) _____

A) $x < -1$

B) $x \leq 9$

C) $x \geq 9$

D) $x > -1$

123) $\frac{1}{3}(x + 5) > \frac{1}{4}(x + 3)$

123) _____

A) $x > -11$

B) $x > 11$

C) $x < -11$

D) $x < 11$

124) $\frac{x+5}{5} - \frac{2}{45} > \frac{x+3}{9}$

124) _____

A) $x > -7$

B) $x > \frac{31}{2}$

C) $x < -7$

D) $x < -\frac{16}{7}$

125) $0.8(0.2 - x) - 1.5 > 3.6(x - 0.3)$ (Round to two decimal places if necessary) 125) _____
 A) $x < -0.06$ B) $x > -0.06$ C) $x > -0.09$ D) $x < -0.09$

Solve for the variable. Noninteger answers may be left in fractional form or decimal form.

126) $8x + 6.3 = 86.3$ 126) _____
 A) $x = 4$ B) $x = 76$ C) $x = 72$ D) $x = 10$

127) $4x + 2 = 4 - 2x$ 127) _____
 A) $x = \frac{1}{3}$ B) $x = 3$ C) $x = \frac{1}{3}$ D) $x = -3$

128) $5(y + 6) = 6(y - 8)$ 128) _____
 A) $y = 78$ B) $y = -18$ C) $y = -78$ D) $y = 18$

129) $\frac{2}{5}y - 3 = \frac{1}{3}y$ 129) _____
 A) $y = -90$ B) $y = 45$ C) $y = -45$ D) $y = 90$

130) $4(x + 2) = 5(x - 5)$ 130) _____
 A) $x = 17$ B) $x = -33$ C) $x = 33$ D) $x = -17$

131) $-8.7 + 4x - 6.6 + 2x - 2.1 = 5.2 + 7x + 1.2$ 131) _____
 A) $x = -11$ B) $x = 23.8$ C) $x = 11$ D) $x = -23.8$

132) $\frac{3}{7}y + \frac{1}{2} = -\frac{4}{7}y - \frac{5}{6}$ 132) _____
 A) $y = -\frac{5}{8}$ B) $y = -\frac{1}{3}$ C) $y = \frac{4}{3}$ D) $y = -\frac{4}{3}$

133) $-3y + 5 + 2(y + 1) = 2y - 1$ 133) _____
 A) $y = \frac{8}{3}$ B) $y = 2$ C) $y = \frac{1}{5}$ D) $y = \frac{1}{8}$

134) $15(6x - 9) = 4x - 2$ 134) _____
 A) $x = -\frac{133}{86}$ B) $x = \frac{133}{86}$ C) $x = \frac{137}{86}$ D) $x = \frac{133}{94}$

135) $3(x + 8) = 4(x - 5)$ 135) _____
 A) $x = -44$ B) $x = 4$ C) $x = 44$ D) $x = -4$

136) $3(2x - 5) = 5(x + 4)$ 136) _____
 A) $x = 35$ B) $x = 8$ C) $x = 5$ D) $x = -5$

137) $6(x + 9) - (5x + 8) = 7$ 137) _____
 A) $x = -6$ B) $x = 53$ C) $x = -39$ D) $x = 39$

Solve for x.

138) $5(x - 9) - (4x + 4) = 8$ 138) _____
 A) $x = 57$ B) $x = -21$ C) $x = -57$ D) $x = -41$

139) $\frac{2}{5}x - \frac{1}{3}x = 3$ 139) _____
 A) $x = -90$ B) $x = -45$ C) $x = 90$ D) $x = 45$

140) $\frac{4}{9}x + \frac{2}{7} = -\frac{5}{9}x - \frac{2}{9}$ 140) _____
 A) $x = \frac{32}{63}$ B) $x = \frac{4}{63}$ C) $x = -\frac{1}{4}$ D) $x = -\frac{32}{63}$

141) $\frac{-4x+9}{5} + \frac{7}{5} = -\frac{5x}{6}$ 141) _____
 A) $x = -96$ B) $x = 12$ C) $x = \frac{96}{49}$ D) $x = -12$

142) $\frac{1}{3}(x+9) - \frac{1}{6}(x-6) = x-8$ 142) _____
 A) $x = \frac{24}{5}$ B) $x = \frac{36}{5}$ C) $x = 12$ D) $x = \frac{72}{5}$

Provide an appropriate response.

143) Solve for W. $P = 2L + 2W$ 143) _____
 A) $W = \frac{P-L}{2}$ B) $W = d - 2L$ C) $W = \frac{P-2L}{2}$ D) $W = P - L$

144) Solve for r. $A = P(1 + nr)$ 144) _____
 A) $r = \frac{P-A}{Pn}$ B) $r = \frac{Pn}{A-P}$ C) $r = \frac{A-P}{Pn}$ D) $r = \frac{A}{n}$

145) Solve for a. $A = \frac{1}{2}h(a+b)$ 145) _____
 A) $a = \frac{2A-hb}{h}$ B) $a = \frac{hb-2A}{h}$ C) $a = \frac{A-hb}{2h}$ D) $a = \frac{b2A-h}{h}$

146) Solve for B. $A = \frac{1}{2}h(B+b)$ 146) _____
 A) $B = \frac{2A-bh}{h}$ B) $B = 2A - bh$ C) $B = \frac{2A+bh}{h}$ D) $B = \frac{A-bh}{h}$

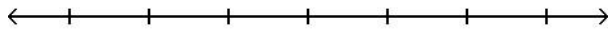
147) Solve for h. $V = \frac{1}{3}Bh$ 147) _____
 A) $h = \frac{3V}{B}$ B) $h = \frac{V}{3B}$ C) $h = \frac{B}{3V}$ D) $h = \frac{3B}{V}$

148) Solve the formula $A = LW$ for L. Use the result to find the room's length if the width of a room is 6 feet, and the area of the room is 96 square feet. 148) _____
 A) $l = 90$ ft B) $l = 16$ ft C) $l = 42$ ft D) $l = 576$ ft

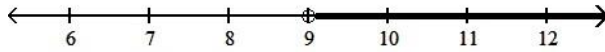
Solve and graph the inequality.

149) $10x + 5 > 9x + 14$

149) _____



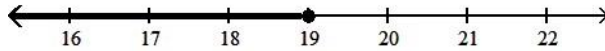
A) $x > 9$



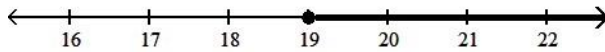
B) $x < 9$



C) $x \leq 19$

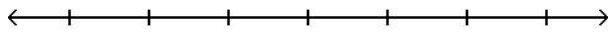


D) $x \geq 19$



150) $15x + 21 - 3(4x + 16) > 0$

150) _____



A) $x > 9$



B) $x \leq 9$



C) $x < 9$

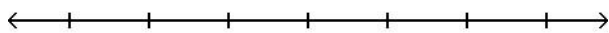


D) $x \geq 9$



151) $-4(3x + 6) < -16x - 12$

151) _____



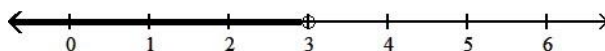
A) $x > 3$



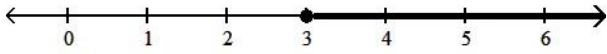
B) $x \leq 3$



C) $x < 3$

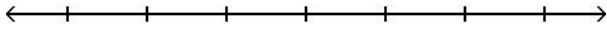


D) $x \geq 3$



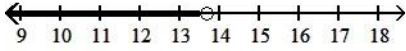
152) $\frac{5}{12}(x+9) > \frac{1}{6}(x+2)$

152) _____



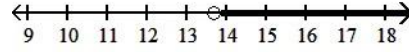
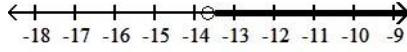
A) $x < 13.67$

B) $x < -13.67$



C) $x > -13.67$

D) $x > -13.67$



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

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

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