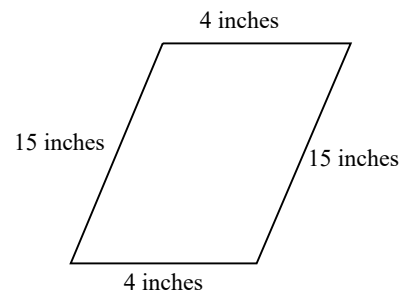| Student: _____	Instructor: Alfredo Alvarez	Assignment:
Date: _____	Course: Martin-Gay Basic Math	MATH2357FIESTAPMDPREALEKS150

1. Add.

$$\begin{array}{r} 41 \\ + \ 27 \\ \hline \end{array}$$

The sum is [＿＿＿＿＿] .
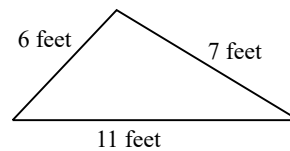
     Answer: 68

2. Find the perimeter of the figure.

4 inches

15 inches   15 inches

4 inches

The perimeter is [＿＿＿＿] (1) [＿＿＿＿]
(Type a whole number.)

(1) ◯ inches.
    ◯ cubic inches.
    ◯ square inches.

    Answers 38
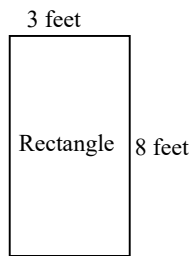
        (1) inches.

3. Find the perimeter of the figure.

6 feet   7 feet

11 feet

The perimeter is [＿＿＿＿] (1) [＿＿＿＿]
(Type a whole number.)

(1) ◯ cubic feet.
    ◯ feet.
    ◯ square feet.

    Answers 24

        (1) feet.

4. Find the perimeter of the figure.

3 feet

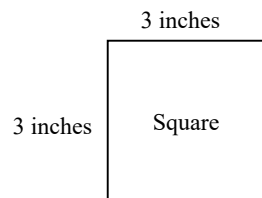Rectangle | 8 feet

The perimeter is [　　　] (1) [　　　]
(Type a whole number.)

(1) ○ cubic feet.
    ○ square feet.
    ○ feet.

Answers 22

(1) feet.

---

5. Find the perimeter of the figure.

3 inches
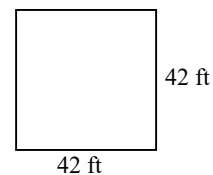
3 inches | Square

The perimeter is [　　　] (1) [　　　]
(Type a whole number.)

(1) ○ inches.
    ○ cubic inches.
    ○ square inches.

Answers 12

(1) inches.

6. A permanent game board is made of granite. Find the perimeter of the square playing board.

42 ft

42 ft

The perimeter is _____ (1) _____

(1) ○ square feet.
   ○ cubic feet.
   ○ feet.

Answers 168

(1) feet.

---

7. Subtract.

$$\begin{array}{r} 77 \\ - 41 \\ \hline \end{array}$$

The difference is _____ .

Answer: 36

---

8. Subtract.

$$\begin{array}{r} 93 \\ - 66 \\ \hline \end{array}$$

The difference is _____ .

Answer: 27

---

9. Subtract. Check by adding.

$$\begin{array}{r} 8\ 0 \\ - \ 6\ 2 \\ \hline \end{array}$$

The difference is _____ .

Answer: 18

10. Round 475 to the nearest ten.

475 rounded to the nearest ten is ☐.

Answer: 480

11. Round 6,564 to the nearest hundred.

The number 6,564 rounded to the nearest hundred is ☐.

Answer: 6,600

12. Round 696 to the nearest ten.

696 rounded to the nearest ten is ☐.

Answer: 700

13. Round 23,188 to the nearest thousand.

23,188 rounded to the nearest thousand is ☐.

Answer: 23,000

14. Use the distributive property to rewrite each expression.

$7(2 + 4)$

$7(2 + 4) =$ ☐
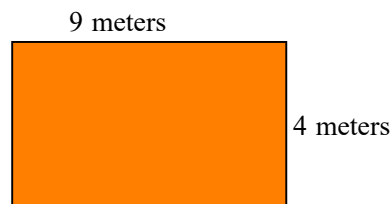(Type an expression. Do not simplify.)

Answer: $7 \cdot 2 + 7 \cdot 4$

15.
Multiply.

$$\begin{array}{r} 73 \\ \times\ 6 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ \times\quad 6 \\ \hline \end{array}$$

Answer: 438

16.

Find the area and the perimeter of the rectangle shown to the right.

9 meters

4 meters

The area of the rectangle is [_____] (1) [_____]

The perimeter of the rectangle is [_____] (2) [_____]

(1) ○ meters.   (2) ○ meters.
    ○ square meters.   ○ square meters.
    ○ cubic meters.   ○ cubic meters.

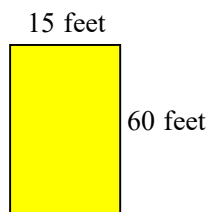Answers 36

       (1) square meters.

       26

       (2) meters.

17.

Find the area and the perimeter of the rectangle shown to the right.

15 feet

60 feet

The area of the rectangle is [_____] (1) [_____]

The perimeter of the rectangle is [_____] (2) [_____]

(1) ○ square feet.   (2) ○ cubic feet.
    ○ feet.   ○ feet.
    ○ cubic feet.   ○ square feet.

Answers 900

       (1) square feet.

       150

       (2) feet.

18. Find the following quotient.

   $55 \div 5$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

   ○ **A.** $55 \div 5 =$ _____ (Simplify your answer.)

   ○ **B.** The answer is undefined.

   Answer: A. $55 \div 5 =$ [**11**] (Simplify your answer.)

---

19. Find the following quotient.

   $0 \div 6$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

   ○ **A.** $0 \div 6 =$ _____ (Simplify your answer.)

   ○ **B.** The quotient is undefined.

   Answer: A. $0 \div 6 =$ [**0**] (Simplify your answer.)

---

20. Divide the following and then check by multiplying.

   $3\overline{)39}$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

   ○ **A.** The quotient does not have a remainder. The quotient is _____ .

   ○ **B.** The quotient has a remainder not equal to 0. The quotient is _____ R

   _____ .

   ○ **C.** The quotient is undefined.

   Answer: A. The quotient does not have a remainder. The quotient is [**13**] .

---

21. Divide the following and then check by multiplying.

   $8\overline{)356}$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

   ○ **A.** The quotient does not have a remainder. The quotient is _____ .

   ○ **B.** The quotient has a remainder not equal to 0. The quotient is _____ R

   _____ .

   ○ **C.** The quotient is undefined.

   Answer: B. The quotient has a remainder not equal to 0. The quotient is [**44**] R [**4**] .

22. Find the average value of the following list of numbers.
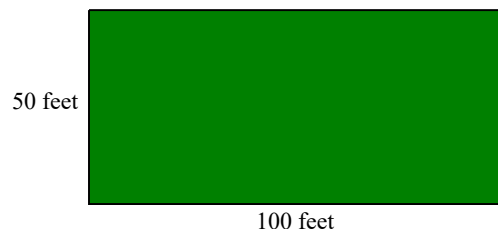
      20, 24, 24, 27, 15, 16

The average value is [   ].

    Answer: 21

23. A vacant lot in the shape of a rectangle measures 100 feet by 50 feet.

    a. What is the perimeter of the lot?
    b. What is the area of the lot?

50 feet

100 feet

a. The perimeter of the lot is [   ] (1) [   ]

b. The area of the lot is [   ] (2) [   ]

(1) ○ square feet.   (2) ○ feet.
      ○ feet.   ○ square feet.
      ○ cubic feet.   ○ cubic feet.

    Answers 300

          (1) feet.

          5000

          (2) square feet.

24. There are 24 hours in a day. How many hours are in 7 days?

There are [   ] hours in 7 days.

    Answer: 168

25. The average weekly pay for a records clerk is $680. If the clerk works 40 hours in one week, what is his or her hourly pay?

The hourly pay is $[   ] an hour.

    Answer: 17

26. Find the value of the expression.

$$4^2$$

$4^2 = \boxed{}$

Answer: 16

---

27. Find the square root.

$$\sqrt{1}$$

$\sqrt{1} = \boxed{}$

Answer: 1

---

28. Simplify.

$$42 + 5 \cdot 6$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $42 + 5 \cdot 6 = \underline{}$
- **B.** The expression is undefined.

Answer: A. $42 + 5 \cdot 6 = \boxed{\textbf{72}}$

---

29. Simplify.

$$8 \div 2 \cdot 4 + 8$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $8 \div 2 \cdot 4 + 8 = \underline{}$
- **B.** The expression is undefined.

Answer: A. $8 \div 2 \cdot 4 + 8 = \boxed{\textbf{24}}$

---

30. Simplify.

$$27 \div 9 - 1$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $27 \div 9 - 1 = \underline{}$
- **B.** The expression is undefined.

Answer: A. $27 \div 9 - 1 = \boxed{\textbf{2}}$

31. Simplify.

    $6 \cdot 9 + 4 \cdot 4$

    Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

    ○ **A.** $6 \cdot 9 + 4 \cdot 4 = $ _____

    ○ **B.** The expression is undefined.

    Answer: A. $6 \cdot 9 + 4 \cdot 4 = $ | **70** |

32. Simplify.

    $(4 + 5) \cdot (9 - 3)$

    Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

    ○ **A.** $(4 + 5) \cdot (9 - 3) = $ _____

    ○ **B.** The expression is undefined.

    Answer: A. $(4 + 5) \cdot (9 - 3) = $ | **54** |

33. Simplify.

    $$\frac{4(7 - 4) + 2}{2^2 - 2}$$

    Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

    ○ **A.** $\dfrac{4(7 - 4) + 2}{2^2 - 2} = $ _____

    ○ **B.** The expression is undefined.

    Answer: A. $\dfrac{4(7 - 4) + 2}{2^2 - 2} = $ | **7** |

34. Simplify.

    $3^4 - [39 - (13 - 6)]$

    Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

    ○ **A.** $3^4 - [39 - (13 - 6)] = $ _____

    ○ **B.** The expression is undefined.

    Answer: A. $3^4 - [39 - (13 - 6)] = $ | **49** |

35. Match each value to its equivalent expression. Answer choices may be used more than once or not at all.

13. 16^2 **14.** $\sqrt{16}$ **15.** 16^1 **16.** $42 - 81 \div 3^3$

| 39 | 4 | 256 | 16 | 1 |

Drag the correct value above to the appropriate area to the right of each expression.

13. 16^2 [ ]

14. $\sqrt{16}$ [ ]

15. 16^1 [ ]

16. $42 - 81 \div 3^3$ [ ]

Answer:

---

36. Find the prime factorization of the following number. Write any repeated factors using exponents.

25

The prime factorization of 25 is [ ].

Answer: 5^2

---

37. Find the prime factorization of the number 15. Write any repeated factors using exponents.

The prime factorization is [ ].

Answer: $5 \cdot 3$

---

38. Find the prime factorization of the following number. Write any repeated factors using exponents.

18

The prime factorization of 18 is [ ].

Answer: $2 \cdot 3^2$

39. In a certain year, 12 states out of 50 states in a country had primary laws prohibiting all drivers from using hand-held cell phones while driving. These laws allow law enforcement officers to ticket a driver for using a hand-held cell phone, even if no other traffic offense has occurred.

    a) Find the ratio of states with primary hand-held cell phone laws to the total number of states.
    b) Find the number of states with no primary law prohibiting hand-held cell phone use while driving.
    c) Find the ratio of states with primary hand-held cell phone laws to states without such laws.

    a) The ratio of states with primary hand-held cell phone laws to the total number of states is [_____].
    (Type a whole number or a simplified fraction.)

    b) The number of states with no primary law prohibiting hand-held cell phone use while driving is [_____].
    (Simplify your answer.)

    c) The ratio of states with primary hand-held cell phone laws to states without such laws is [_____].
    (Type a whole number or a simplified fraction.)

    Answers $\dfrac{6}{25}$

            38

            $\dfrac{6}{19}$

40. Write the percent as a decimal.

    8%

    8% = [_____]

    Answer: 0.08

41. Write the percent as a decimal.

    75.1%

    75.1% = [_____]

    Answer: 0.751

42. Write the percent as a fraction or mixed number in simplest form.

    15%

    15% = [_____]

    Answer: $\dfrac{3}{20}$

43. Write the percent as a fraction or mixed number in simplest form.

14%

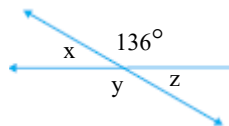14% = [   ]

Answer: $\dfrac{7}{50}$

---

44. Write the following fraction as a percent.

$\dfrac{1}{4}$

$\dfrac{1}{4}$ = [   ]% (Simplify your answer. Type a whole number.)

Answer: 25

---

45. Find the measures of angles x, y, and z in the figure.

The measure of angle x is [   ]°.

The measure of angle y is [   ]°.

The measure of angle z is [   ]°.

Answers 44

136

44

46.

Find the measure of ∠x in the figure.
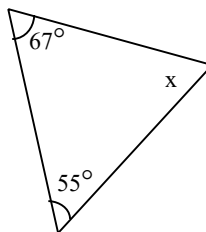
(Note: Figure is not drawn to scale.)

The measure of ∠x is [   ]°.

Answer: 58

47. Find the measure of ∠x in the figure.

93°
69°
x
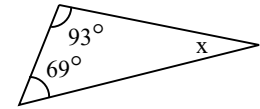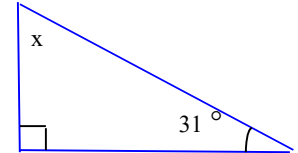
(Note: Figure is not drawn to scale.)

The measure of ∠x is [ ]°.

Answer: 18

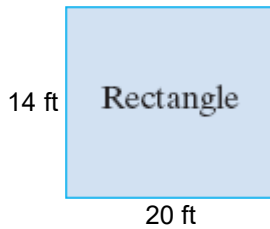
48. Find the measure of ∠x in the figure.

x

31°

The measure of ∠x is [ ]°.

Answer: 59

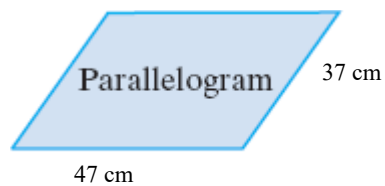
49. Find the perimeter of the following figure.

14 ft | Rectangle

20 ft

Perimeter = [ ] (1) [ ]

(1) ◯ ft
◯ sq. ft

Answers 68

(1) ft

---

50. Find the perimeter of the following figure.

Parallelogram   37 cm

47 cm

Perimeter = [ ]   (1) [ ]

(1) ○ sq. cm
    ○ cm

Answers 168

(1) cm

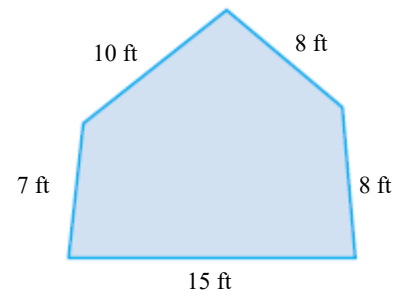51. Find the perimeter of the following figure.

16 in.   18 in.

20 in.
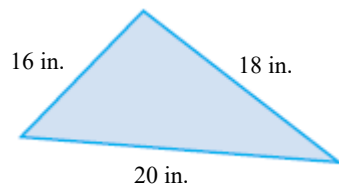
The perimeter is [ ]   (1) [ ]

(1) ○ in.
    ○ sq. in.

Answers 54

(1) in.

52. Find the perimeter of the figure shown to the right.

10 ft   8 ft
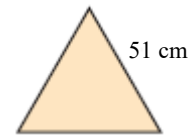
7 ft   8 ft

15 ft

Perimeter = [＿＿＿] (1) [＿＿＿]

(1) ◯ ft.
   ◯ sq. ft.

  Answers 48

    (1) ft.

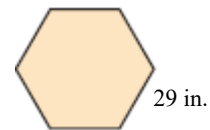53. Find the perimeter of the regular polygon shown to the right.

51 cm

The perimeter is [＿＿＿] (1) [＿＿＿]

(1) ◯ square centimeters.
   ◯ centimeters.

  Answers 153

    (1) centimeters.

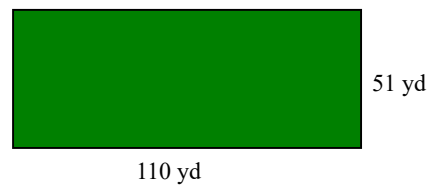54. Find the perimeter of the regular polygon shown to the right.

29 in.

The perimeter is [＿＿＿] (1) [＿＿＿]

(1) ◯ inches.
   ◯ square inches.

  Answers 174

    (1) inches.

55. If a playing field is 51 yards wide and 110 yards long, what is the perimeter?
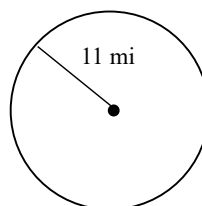
51 yd

110 yd

Perimeter = [_____] (1) [_____]

(1) ◯ sq. yd
   ◯ yd

Answers 322

     (1) yd

---

56. Find the circumference of the circle. Give the exact circumference and then an approximation. Use $\pi \approx 3.14$.

11 mi

The exact circumference of the circle is [_____] (1) [_____]
(Simplify your answer. Type an exact answer in terms of π.)

The approximate circumference of the circle is [_____] (2) [_____]
(Type a whole number or a decimal rounded to the nearest hundredth.)

(1) ◯ miles.   (2) ◯ miles.
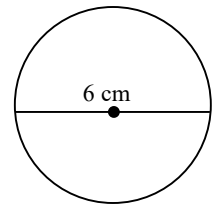   ◯ square miles.   ◯ square miles.

Answers 22π

     (1) miles.

     69.08

     (2) miles.

57. Find the circumference of the circle. Give the exact circumference and then an approximation. Use $\pi \approx 3.14$.

6 cm

The exact circumference of the circle is [　　　　] (1) [　　　　]
(Simplify your answer. Type an exact answer in terms of π.)

The approximate circumference of the circle is [　　　　] (2) [　　　　]
(Type a whole number or decimal rounded to the nearest hundredth as needed.)

(1) ○ square centimeters.　　(2) ○ square centimeters.
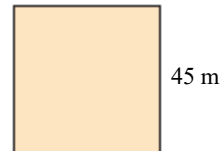　　 ○ centimeters.　　　　　　　 ○ centimeters.

Answers 6π

     (1) centimeters.

     18.84

     (2) centimeters.

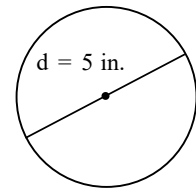58. Find the distance around the square shown to the right.

45 m

The distance around the figure is [　　　　] (1) [　　　　]

(1) ○ m.
　　 ○ sq m.

Answers 180

     (1) m.

---

59. Find the area of the given geometric figure. If the figure is a circle, give an exact area and then use 3.14 as an approximation for π to approximate the area.

$d = 5$ in.

The exact area of the circle is ⬚ (1) ⬚
(Simplify your answer. Type an exact answer in terms of π.)

The approximate area of the circle is ⬚ (2) ⬚
(Simplify your answer. Type a whole number or decimal rounded to the nearest thousandth as needed.)

(1) ◯ cu in.   (2) ◯ sq in.
    ◯ sq in.   ◯ cu in.
    ◯ in.   ◯ in.

Answers 6.25π

     (1) sq in.

     19.625

     (2) sq in.

60. Find the volume of the solid.
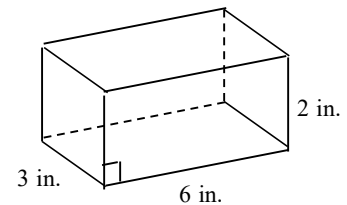
2 in.
3 in.
6 in.

The volume of the solid is ⬚ (1) ⬚
(Simplify your answer.)

(1) ◯ cubic inches.
    ◯ inches.
    ◯ square inches.

Answers 36

     (1) cubic inches.

61. Find the volume of the solid.

10 cm

10 cm

10 cm
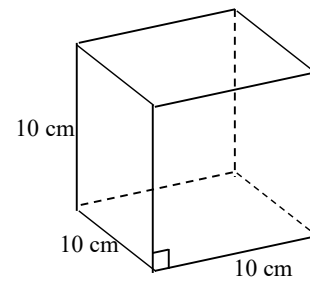
The volume of the solid is [   ] (1) [   ]
(Simplify your answer.)

(1) ○ square centimeters.
    ○ centimeteres.
    ○ cubic centimeters.

Answers 1000

(1) cubic centimeters.

62. Simplify.

$$\left| -72 \right|$$

$\left| -72 \right| =$ [   ]

Answer: 72

63. Simplify.

$$-\left| -37 \right|$$

$-\left| -37 \right| =$ [   ]

Answer: -37

64. Simplify.

$$-(-98)$$

$-(-98) =$ [   ]

Answer: 98

65. Subtract.

$$-6-(-6)$$

$-6-(-6) = $ ☐

Answer: 0

66. Perform the subtraction.

$$15-(-15)$$

$15-(-15) = $ ☐

Answer: 30

67. Subtract.

$$-3-(-5)$$

$-3-(-5) = $ ☐

Answer: 2

68. Perform the subtraction.

$$-8-17$$

$-8-17 = $ ☐

Answer: -25

69. Subtract.

$$5-17$$

$5-17 = $ ☐

Answer: -12

70. Subtract.

$$2.4-3.7$$

$2.4-3.7 = $ ☐ (Type an integer or a decimal.)

Answer: -1.3

71.   Subtract.

$$-\frac{5}{11} - \left(-\frac{6}{11}\right)$$

$-\frac{5}{11} - \left(-\frac{6}{11}\right) = \boxed{}$ (Simplify your answer.)

Answer: $\dfrac{1}{11}$

72.   Subtract.

$$\frac{1}{6} - \frac{5}{12}$$

$\frac{1}{6} - \frac{5}{12} = \boxed{}$ (Simplify your answer.)

Answer: $-\dfrac{1}{4}$

73.   Add.

$$-13 + (-26)$$

The sum is $\boxed{}$.

Answer: -39

74.   Subtract.

$$-12.5 - 2.3$$

$-12.5 - 2.3 = \boxed{}$ (Type an integer or a decimal.)

Answer: -14.8

75.   Simplify.

$$9 - 3 - 5$$

$9 - 3 - 5 = \boxed{}$

Answer: 1

76. Simplify.

$$-2-24-(-19)$$

$-2-24-(-19) = \boxed{}$

Answer: -7

77. Simplify. (Hint: Find the absolute values first.)

$$\left|-20\right| - \left|-30\right|$$

$\left|-20\right| - \left|-30\right| = \boxed{}$

Answer: -10

78. Multiply.

$$-8(-9)$$

$-8(-9) = \boxed{}$

Answer: 72

79. Multiply.

$$-6(8)$$

$-6(8) = \boxed{}$

Answer: -48

80. Multiply.

$$-\frac{1}{8}\left(-\frac{3}{7}\right)$$

$-\frac{1}{8}\left(-\frac{3}{7}\right) = \boxed{}$ (Type a simplifed fraction.)

Answer: $\dfrac{3}{56}$

81. Multiply.

$$3(-5)(6)$$

$3(-5)(6) = \boxed{}$ (Simplify your answer.)

Answer: -90

82. Multiply.

$$-1(-3)(-7)$$

$-1(-3)(-7) = \boxed{}$

Answer: -21

83. Evaluate.

$$(-2)^2$$

$(-2)^2 = \boxed{}$

Answer: 4

84. Evaluate.

$$-13^2$$

$-13^2 = \boxed{}$

Answer: -169

85. Find the quotient.

$$\frac{-90}{9}$$

Select the correct choice below and fill in any answer boxes in your choice.

○ **A.** $\dfrac{-90}{9} = \underline{}$

○ **B.** The answer is undefined.

Answer: A. $\dfrac{-90}{9} = \boxed{\mathbf{-10}}$

86. Find the quotient.

$$\frac{-120}{-12}$$

Select the correct choice below and fill in any answer boxes in your choice.

  ○ **A.** $\dfrac{-120}{-12} =$ _____

  ○ **B.** The answer is undefined.

    Answer: A. $\dfrac{-120}{-12} =$ | **10** |

---

87. Divide.

$$\frac{0}{15}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

  ○ **A.** $\dfrac{0}{15} =$ _____ (Type a whole number.)

  ○ **B.** The answer is undefined.

    Answer: A. $\dfrac{0}{15} =$ | **0** | (Type a whole number.)

---

88. Find the following quotient.

$$\frac{75}{-5}$$

Select the correct choice below and fill in any answer boxes in your choice.

  ○ **A.** $\dfrac{75}{-5} =$ _____

  ○ **B.** The answer is undefined.

    Answer: A. $\dfrac{75}{-5} =$ | **− 15** |

89. Divide.

$$-\frac{5}{11} \div \left(-\frac{1}{5}\right)$$

$-\frac{5}{11} \div \left(-\frac{1}{5}\right) = \boxed{}$ (Type an integer or a simplified fraction.)

Answer: $\frac{25}{11}$

90. Divide.

$$\frac{180}{-30}$$

Select the correct choice below and fill in any answer boxes in your choice.

○ **A.** $\frac{180}{-30} = \underline{}$

○ **B.** The answer is undefined.

Answer: A. $\frac{180}{-30} = \boxed{-6}$

91. Find the quotient.

$$\frac{-90}{-9}$$

Select the correct choice below and fill in any answer boxes in your choice.

○ **A.** $\frac{-90}{-9} = \underline{}$

○ **B.** The answer is undefined.

Answer: A. $\frac{-90}{-9} = \boxed{10}$

92. Divide.

$$\frac{-400}{0.8}$$

Select the correct choice below and if necessary, fill in the answer box to complete your choice.

○ **A.** $\frac{-400}{0.8} = $ _____

○ **B.** The answer is undefined.

Answer: A. $\frac{-400}{0.8} = \boxed{\mathbf{-500}}$

93. Divide.

$$-\frac{8}{63} \div \frac{1}{7}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** $-\frac{8}{63} \div \frac{1}{7} = $ _____ (Simplify your answer.)

○ **B.** The quotient is undefined.

Answer: A. $-\frac{8}{63} \div \frac{1}{7} = \boxed{\mathbf{-\frac{8}{9}}}$ (Simplify your answer.)

94. Perform the indicated operation.

$$\frac{5}{4}\left(-\frac{9}{10}\right)$$

$\frac{5}{4}\left(-\frac{9}{10}\right) = $ _____ (Type an integer or a simplified fraction.)

Answer: $-\frac{9}{8}$

95. Perform the subtraction.

$$-24 - 1$$

$-24 - 1 = $ _____

Answer: -25

96. Perform the indicated operations.

$$-8 - 17 - (-13)$$

$-8 - 17 - (-13) = \boxed{}$

Answer: -12

97. Simplify.

$$-1(-4) + 4$$

$-1(-4) + 4 = \boxed{}$

Answer: 8

98. Simplify.

$$\frac{-8(-5)}{10}$$

$\dfrac{-8(-5)}{10} = \boxed{}$ (Type an integer or a simplified fraction.)

Answer: 4

99. Simplify.

$$7 - 15 - 3$$

$7 - 15 - 3 = \boxed{}$

Answer: -11

100. Simplify.

$$1 + 9(-2)$$

$1 + 9(-2) = \boxed{}$

Answer: -17

101. Simplify.

$$\frac{8}{9}\left(\frac{3}{10} - \frac{8}{10}\right)$$

$\frac{8}{9}\left(\frac{3}{10} - \frac{8}{10}\right) = \boxed{}$ (Type a simplified fraction.)

Answer: $-\frac{4}{9}$

102. Simplify.

$$-9 + 8 \div 4$$

$-9 + 8 \div 4 = \boxed{}$

Answer: -7

103. Simplify.

$$6(-9) - (-14)$$

$6(-9) - (-14) = \boxed{}$

Answer: -40

104. Simplify.

$$-18 - 11(2)$$

$-18 - 11(2) = \boxed{}$

Answer: -40

105. Simplify.

$$[6 + (-4)]^3$$

$[6 + (-4)]^3 = \boxed{}$

Answer: 8

106. Simplify.

$$(3 - 13) \div 5$$

$(3 - 13) \div 5 = \boxed{}$

Answer: -2

107. Simplify.

$$(-38 - 34) \div 18 - 26$$

$(-38 - 34) \div 18 - 26 = $ ⬚ (Simplify your answer. Type an integer or a fraction.)

Answer: -30

108. Simplify.

$$3 - 5 \cdot 9 - 18$$

$3 - 5 \cdot 9 - 18 = $ ⬚ (Simplify your answer. Type an integer or a fraction.)

Answer: -60

109. Simplify.

$$(-6)^2 - 4^2$$

$(-6)^2 - 4^2 = $ ⬚

Answer: 20

110. Evaluate the expression when $z = -2$.

$$9 + 6z$$

$9 + 6z = $ ⬚ when $z = -2$.
(Simplify your answer.)

Answer: -3

111. Evaluate the following expression when $x = -4$ and $z = -2$.

$$5x - z$$

$5x - z = $ ⬚ (Simplify your answer.)

Answer: -18

112. Evaluate the expression when $x = -6$ and $y = 1$.

$$y^3 - 5x$$

$y^3 - 5x = $ ⬚ when $x = -6$ and $y = 1$.
(Simplify your answer.)

Answer: 31

113. Evaluate the following expression when x = − 3 and y = 8.

$$\frac{3y - 12}{x}$$

$\dfrac{3y - 12}{x} =$ ⬚ (Type an integer or a simplified fraction.)

Answer: − 4

114. Simplify the expression by combining like terms.

2d + 3d

2d + 3d = ⬚

Answer: 5d

115. Simplify the expression by combining like terms.

8x − 19x

8x − 19x = ⬚

Answer: − 11x

116. Combine like terms.

6x + x − 9x

6x + x − 9x = ⬚

Answer: − 2x

117. Simplify the expression by combining like terms.

4q + 7q + 6q − 3

4q + 7q + 6q − 3 = ⬚

Answer: 17q − 3

118. Simplify the following expression by combining like terms.

5x + 6 − x − 11

5x + 6 − x − 11 = ⬚ (Simplify your answer.)

Answer: 4x − 5

119. Multiply.

    6(p + 2)

    6(p + 2) = [   ]

    Answer: 6p + 12

120. Multiply.

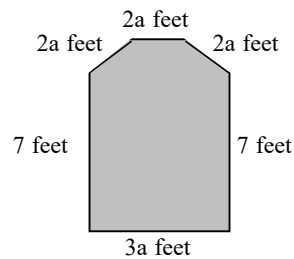   3(2y − 2)

    3(2y − 2) = [   ]

    Answer: 6y − 6

121. Simplify the expression. First use the distributive property to multiply and remove parentheses.

    4 + 5(w + 4) + w

    4 + 5(w + 4) + w = [   ]

    Answer: 6w + 24

122. Find the perimeter of the figure to the right.

2a feet
2a feet   2a feet
7 feet   7 feet
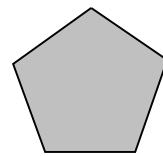3a feet

The perimeter is ([   ]) (1) [   ]
(Simplify your answer.)

(1) ○ ft.
     ○ sq ft.
     ○ cu ft.

Answers 9a + 14

        (1) ft.

123. Find the perimeter of the figure to the right.

Each side:

$(4x+11)$

inches

The perimeter is ([   ]) (1) [   ]
(Simplify your answer.)

(1) ○ sq in.
   ○ in.
   ○ cu in.

Answers 20x + 55

(1) in.

124. Find the area of the rectangle to the right.

9 inches

2y inches

The area of the rectangle is [   ] (1) [   ]
(Simplify your answer.)

(1) ○ sq in.
   ○ in.
   ○ cu in.

Answers 18y

(1) sq in.

125. Find the area of the rectangle to the right.

37 kilometers

$(x-3)$ kilometers

The area of the rectangle is $($ _____ $)$ (1) _____
(Simplify your answer.)

(1) ○ km.
     ○ sq km.
     ○ cu km.

Answers 37x − 111

    (1) sq km.

---

126. Find the area of the rectangle to the right.
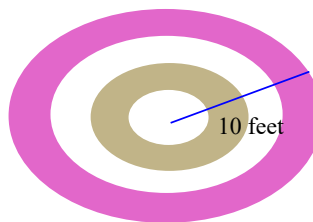
$(2y+1)$ miles

21 miles

The area of the rectangle is $($ _____ $)$ (1) _____
(Simplify your answer.)

(1) ○ sq mi.
     ○ mi.
     ○ cu mi.

Answers 42y + 21

    (1) sq mi.

127. Find the area of a circular braided rug with a radius of 10 feet.
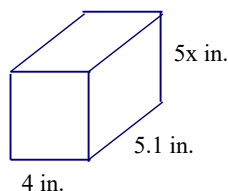Use $A = \pi r^2$ and $\pi \approx 3.14$.

10 feet

The area of a circular braided rug is [   ] (1) [   ]
(Type an integer or decimal rounded to two decimal places as needed.)

(1) ○ cubic feet.
    ○ square feet.
    ○ feet.

Answers 314

(1) square feet.

128. Find the volume. Use $V = LWH$.

5x in.
5.1 in.
4 in.

The volume is [   ] (1) [   ]
(Simplify your answer.)

(1) ○ cubic inches.
    ○ inches.
    ○ square inches.

Answers 102x

(1) cubic inches.

129. Solve. Check your solution.

$x + 5 = 22$

The solution is $x = $ [   ].

Answer: 17

130. Solve. Check your solution.

$$d - 10 = -3$$

The solution is d = [   ].

Answer: 7

131. Solve. Check your solution.

$$23 = y - 7$$

The solution is y = [   ].

Answer: 30

132. Solve. Check your solution.

$$-19 = x + 3$$

The solution is x = [   ].

Answer: -22

133. Solve. Check your solution.

$$-3 + 13 = m - 9$$

m = [   ]

Answer: 19

134. Solve. Check the solution.

$$x - 0.8 = 3.9$$

x = [   ]

Answer: 4.7

135. Solve.

$$8x = 24$$

The solution is x = [   ].

Answer: 3

136. Solve.

$$-7z = 28$$

The solution is z = ▢ .

 Answer: -4

---

137. Solve the following equation.

$$0.5z = -20$$

The solution is z = ▢ .
(Simplify your answer.)

 Answer: -40

---

138. Solve the following equation.

$$5z = -70$$

The solution is z = ▢ .
(Simplify your answer.)

 Answer: -14

---

139. Solve.

$$-0.5x = -20$$

x = ▢

 Answer: 40

---

140. Solve.

$$9 = \frac{3}{4}x$$

x = ▢
(Type an integer or a simplified fraction.)

 Answer: 12

---

141. Solve. First combine any like terms on each side of the equation.

$$9w - 15w = 54$$

w = ▢

 Answer: -9

---

142. Solve the following equation.

$$6x + 24 = 0$$

The solution is x = ☐ .
(Simplify your answer.)

Answer: − 4

143. Solve the equation.

$$5x − 1 = 6x + 5$$

x = ☐

Answer: − 6

144. Solve the following equation.

$$9x + 23 = 5x + 3$$

The solution is x = ☐ .
(Simplify your answer.)

Answer: − 5

145. Solve the equation.

$$5 − 7x = 14 + 2x$$

x = ☐

Answer: − 1

146. Solve the equation.

$$− 4.5x − 4 = − 4.0x + 1$$

x = ☐ (Simplify your answer. Type an integer or a decimal.)

Answer: − 10

147. Solve the equation.

$$− 2(y + 1) = 0$$

y = ☐ (Simplify your answer.)

Answer: − 1

148. Solve the equation.

$$4(y - 2) = 2y - 8$$

y = [ ]

Answer: 0

149. Use the distributive property to help you solve the equation.

$$3(w - 2) = 6$$

w = [ ]

Answer: 4

150. The two top-selling video games for a gaming system are Game A and Game B. The price for Game B is $17 more than the price for Game A. If the total of these two prices is $27, find the price of each game.

Game A costs $[ ].

Game B costs $[ ].

Answers 5

22