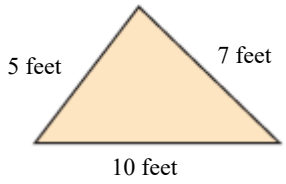
Student: _____	**Instructor:** Alfredo Alvarez	**Assignment:**
Date: _____	**Course:** Math 0410 / 0320 Alvarez	M5THGEODECIMALFIESTA145N150PMR

1. Find the perimeter of the figure.



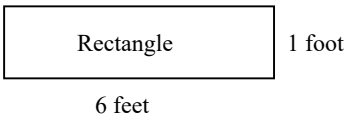
The perimeter is ☐ feet.

Answer: 22

---

2. Find the perimeter of the figure.

☐ ft

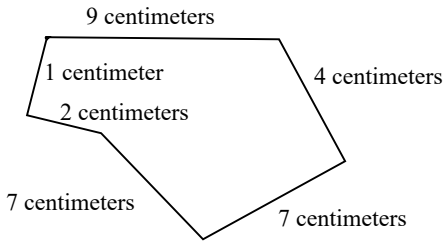


Answer: 14

---

3. Find the perimeter of the figure.

☐ cm



Answer: 30

---

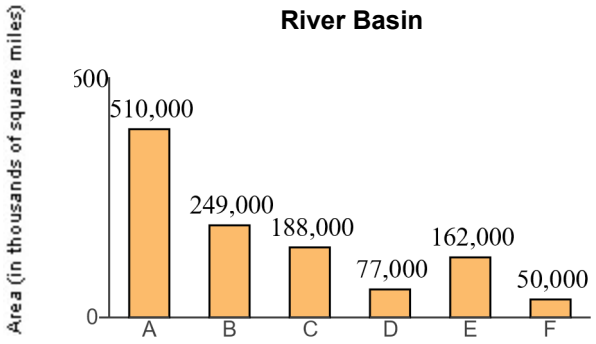
4. A new notebook computer with DVD player costs $595. Derik Muller has $940 in his checking account. How much will be left in his checking account after he buys the notebook computer?

Derik will have $☐ remaining in his checking account after he buys the notebook computer.

Answer: 345

---

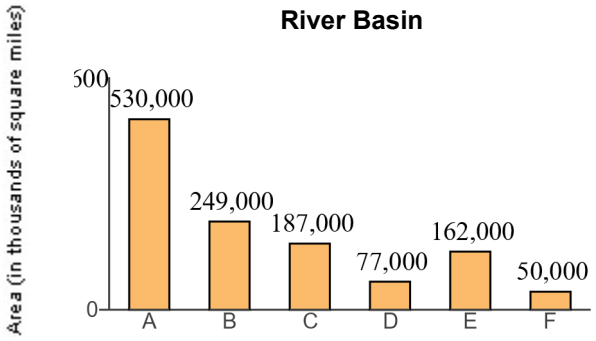
5. Find the total land area drained by the C and D sub-basins.



[ ] sq mi

Answer: 265,000

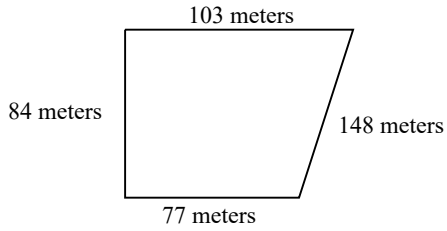
6. How many more square miles of land is drained by the A sub-basin than the B sub-basin?



[ ] sq mi

Answer: 281,000

7. Alexander is installing a pen for his dog. The pen will have the shape and dimensions of the figure shown to the right. How many meters of fencing are needed to enclose the the area shown?



[ ] m

Answer: 412

8. A permanent game board is made of granite. It is in the shape of a square with side lengths of 33 ft. Find the perimeter of the square playing board.

The perimeter is [ ] feet.

Answer: 132

9. The table on the right shows the number of particular stores in ten states. Which state has the most stores?

State (1) [ ] has the most stores.

The Top States for the Stores

State	Number of Stores
A	32
B	121
C	72
D	42
E	75
F	62
G	52
H	78
K	46
L	108

(1) ○ A ○ E ○ K
○ B ○ F ○ L
○ C ○ G
○ D ○ H

Answer: (1) B

---

10. The table on the right shows the number of a particular store in ten states. What is the total number of stores located in the three states with the most stores?

A total of [ ] stores are located in the three states with the most stores.

State	Number of Stores
Arizona	125
California	157
Florida	35
Georgia	77
Illinois	27
New York	53
Michigan	58
Minnesota	30
Ohio	74
Texas	22

Answer: 359

---

11. Round 2,675 to the nearest hundred.

The number 2,675 rounded to the nearest hundred is [ ].

Answer: 2,700

---

12. Bargain Appliance Store advertises three washing machines on sale at $1099, $799, and $1399. Round each cost to the nearest hundred to estimate the total cost.

The estimated total cost is $[ ].

Answer: 3300

---

13. Use the distributive property to rewrite each expression.

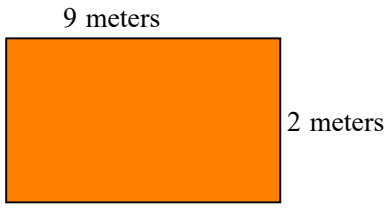
3(8 + 2)

3(8 + 2) = ☐
(Type an expression. Do not simplify.)

Answer: 3 • 8 + 3 • 2

---

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



The area of the rectangle is ☐ (1) ☐

The perimeter of the rectangle is ☐ (2) ☐

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

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

Answers 18

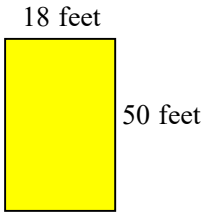
(1) square meters.

22

(2) meters.

---

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



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

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

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

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

Answers 900

(1) square feet.

136

(2) feet.

16. One triple fudge brownie contains 157 calories. How many calories are in 14 triple fudge brownies?

[ ] calories

Answer: 2198

17. Cabot Creamery is packing a palette of 20-lb boxes of cheddar cheese to send to a local restaurant. There are three layers of boxes on the pallet, and each layer is four boxes wide by three boxes deep.
a. How many boxes are in one layer?
b. How many boxes are on the pallet?
c. What is the weight of the cheese on the pallet?

a. There are [ ] boxes in one layer.

b. There are [ ] boxes on the pallet.

c. The weight of the cheese on the pallet is [ ] lb.

Answers 12

36

720

18. A plot of land measures 90 feet by 110 feet. Find its area.

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

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

Answers 9,900

(1) square feet.

---

19. One ounce of nuts contains 179 calories. How many calories are in 14 ounces of nuts?

[ ] calories

Answer: 2506

---

20. A plant for a tea company has bagging machines capable of bagging 1000 bags of tea per minute. If the plant runs 21 hours a day, how many tea bags are produced in one day?

The company produces [ ] tea bags in one day of operation.

Answer: 1,260,000

---

21. Divide the following and then check by multiplying.

$5\overline{)420}$

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 **84**.

---

22. Divide the following and then check by multiplying.

$3\overline{)2066}$

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 **688** R **2**.

---

23. For their wedding, Ben and Jen paid $19 for each guest's dinner. The total bill was $2185. How many guests did they have at their wedding?

[ ] guests

Answer: 115

---

24. A truck hauls wheat to a storage granary. It carries a total of 5,848 bushels of wheat in 17 trips. How much does the truck haul each trip if each trip it hauls the same amount?

The truck hauls [ ] bushels each trip.

Answer: 344

---

25. Find the average value of the following list of numbers.

10, 22, 28, 26, 12, 16

The average value is [ ].

Answer: 19

---

26. Simplify.

$12 + 5 \cdot 9$

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

- **A.** $12 + 5 \cdot 9 =$ _____
- **B.** The expression is undefined.

Answer: A. $12 + 5 \cdot 9 =$ **57**

---

27. Simplify.

$37 + \frac{42}{7}$

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

- **A.** $37 + \frac{42}{7} =$ _____
- **B.** The expression is undefined.

Answer: A. $37 + \frac{42}{7} =$ **43**

28. Simplify.

$6 \cdot 9 + 2 \cdot 2$

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

- **A.** $6 \cdot 9 + 2 \cdot 2 =$ _____
- **B.** The expression is undefined.

Answer: A. $6 \cdot 9 + 2 \cdot 2 =$ **58**

29. Simplify.

$(2 + 3) \cdot (7 - 4)$

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

- **A.** $(2 + 3) \cdot (7 - 4) =$ _____
- **B.** The expression is undefined.

Answer: A. $(2 + 3) \cdot (7 - 4) =$ **15**

30. Evaluate the expression for $x = 4$ and $z = 2$.

$5xz - 3x$

$5xz - 3x =$ [ ]

Answer: 28

31. Evaluate the expression for x = 3 and z = 4.

$5x - z$

$5x - z =$ ☐

Answer: 11

---

32. Evaluate the expression for x = 2 and y = 4.

$\frac{3y - 4}{x}$

$\frac{3y - 4}{x} =$ ☐

Answer: 4

---

33. Evaluate the algebraic expression for the given value.

$x^2 - 4x + 3$, for x = 7

When x = 7, $x^2 - 4x + 3 =$ ☐.
(Simplify your answer.)

Answer: 24

---

34. Evaluate the following expression for x = 3, y = 4, and z = 1.

$4y(4z - x)$

The answer is ☐.

Answer: 16

---

35. Determine which numbers in the set are solutions of the equation.

$n - 6 = 12$; {16, 18, 20}

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

- ○ **A.** ☐ in the set {16, 18, 20} is a solution of the equation n − 6 = 12.
- ○ **B.** None of the numbers in the set are solutions of the equation

Answer: A. **18** in the set {16, 18, 20} is a solution of the equation n − 6 = 12.

---

36. Determine which numbers in the set are solutions of the equation.

$7n = 42$; {6, 36, 42}

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

- **A.** _____ in the set {6, 36, 42} is a solution of the equation $7n = 42$.
- **B.** None of the numbers in the set are solutions of the equation.

Answer: A. **6** in the set {6, 36, 42} is a solution of the equation $7n = 42$.

---

37. Determine which numbers in the set are solutions of the equation.

$7n + 1 = 57$; {0, 6, 8}

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

- **A.** _____ in the set {0, 6, 8} is a solution of the equation $7n + 1 = 57$.
- **B.** None of the numbers in the set are solutions of the equation.

Answer: A. **8** in the set {0, 6, 8} is a solution of the equation $7n + 1 = 57$.

---

38. Simplify.

$8 + 9 \cdot 3 - 10$

$8 + 9 \cdot 3 - 10 =$ ☐

Answer: 25

---

39. Solve. Check your solution.

$x + 1 = 17$

The solution is $x =$ ☐.

Answer: 16

---

40. Solve. Check your solution.

$21 = y - 10$

The solution is $y =$ ☐.

Answer: 31

---

41. Solve.

$2x = 4$

The solution is x = [ ].

Answer: 2

---

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

$x - 9 = -8 + 3$

The solution is x = [ ].

Answer: 4

---

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

$5x + 3 - 4x = 12$

The solution is x = [ ].

Answer: 9

---

44. Solve the following equation.

$2x - 10 = 0$

x = [ ]

Answer: 5

---

45. Solve the equation.

$5n + 15 = 60$

n = [ ]

Answer: 9

---

46. Solve the equation.

$4x - 10 = 58$

The solution is x = [ ].

Answer: 17

---

47. Find the prime factorization of the following number.

56

The prime factorization of 56 is [ ].

Answer: $2^3 \cdot 7$

---

48. Find the prime factorization of the following number.

27

The prime factorization of 27 is [ ].

Answer: 3^3

---

49. Find the prime factorization of the following number.

130

The prime factorization of 130 is [ ].

Answer: $2 \cdot 5 \cdot 13$

---

50. Divide.

$$\frac{2}{13} \div \frac{21}{26}$$

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

- **A.** $\frac{2}{13} \div \frac{21}{26} =$ _____ (Type an integer or a simplified fraction.)
- **B.** The answer is undefined.

Answer: A. $\frac{2}{13} \div \frac{21}{26} =$ $\frac{\mathbf{4}}{\mathbf{21}}$ (Type an integer or a simplified fraction.)

---

51. Divide $-\frac{16}{17} \div 32$. Write the quotient in simplest form.

$-\frac{16}{17} \div 32 =$ [ ] (Type an integer or a fraction.)

Answer: $-\frac{1}{34}$

---

52. Perform the indicated operation.

$6 \div \frac{7}{15}$

$6 \div \frac{7}{15} =$ ☐ (Simplify your answer.)

Answer: $\frac{90}{7}$

---

53. Perform the indicated operation.

$\frac{2}{11} \div \frac{7}{22}$

$\frac{2}{11} \div \frac{7}{22} =$ ☐ (Type an integer or a simplified fraction.)

Answer: $\frac{4}{7}$

---

54. Find $\frac{1}{10}$ of 140.

$\frac{1}{10}$ of 140 is ☐. (Simplify your answer. Type a whole number, fraction, or mixed number.)

Answer: 14

---

55. Find $\frac{6}{7}$ of 28. Write the answer in simplest form.

$\frac{6}{7}$ of 28 is ☐. (Simplify your answer.)

Answer: 24

---

56. Add and simplify.

$\frac{3}{20} + \frac{9}{20}$

$\frac{3}{20} + \frac{9}{20} =$ ☐ (Type an integer or a simplified fraction.)

Answer: $\frac{3}{5}$

---

57. Add and simplify.

$$\frac{1}{2}+\frac{1}{4}$$

$\frac{1}{2}+\frac{1}{4}=$ ☐ (Type an integer or a fraction.)

Answer: $\frac{3}{4}$

---

58. Perform the indicated operation.

$$\frac{3}{7}-\frac{2}{9}$$

$\frac{3}{7}-\frac{2}{9}=$ ☐ (Type a whole number or a simplified fraction.)

Answer: $\frac{13}{63}$

---

59. Use the order of operations to simplify the expression.

$$\frac{1}{5}+\frac{1}{2}\cdot\frac{1}{6}$$

$\frac{1}{5}+\frac{1}{2}\cdot\frac{1}{6}=$ ☐ (Type an integer or a fraction. Simplify your answer.)

Answer: $\frac{17}{60}$

---

60. Insert $<$, $>$, or $=$ between the pair of numbers to form a true statement.

0.63 0.68

0.63 ☐ 0.68

Answer: $<$

---

61. Insert $<$, $>$, or $=$ between the pair of numbers to form a true statement.

3.298 3.3

3.298 ☐ 3.3

Answer: $<$

---

62. Write <, >, or = between the pair of numbers to form a true statement.

0.897 0.89700

0.897 [ ] 0.89700

Answer: =

---

63. Round the decimal to the nearest tenth.

0.47

0.47 rounded to the nearest tenth is [ ].

Answer: 0.5

---

64. Round 0.8123 to the nearest thousandth.

0.8123 ≈ [ ]

Answer: 0.812

---

65. Round the monetary amount to the nearest dollar.

$31.09

$31.09 rounded to the nearest dollar is $[ ].

Answer: 31

---

66. A used biology textbook is priced at $37.36. Round this price to the nearest dollar.

$37.36 rounded to the nearest dollar is $[ ].

Answer: 37

---

67. Write as a decimal.

$5\frac{1}{100}$

$5\frac{1}{100}$ = [ ]

Answer: 5.01

---

68. Add the following.

4.6 + 1.34

4.6 + 1.34 = ☐ (Type an integer or a decimal.)

Answer: 5.94

---

69. Find the sum of 57, 4.003, and 6.302.

The sum is ☐.

Answer: 67.305

---

70. Subtract and check.

9.7 − 7.5

9.7 − 7.5 = ☐

Answer: 2.2

---

71. Subtract and check the following.

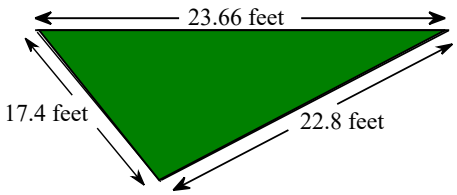
19 − 3.7

19 − 3.7 = ☐ (Type an integer or a decimal.)

Answer: 15.3

---

72. A landscape architect is planning a border for a flower garden shaped like a triangle. The sides of the garden measure 17.4 feet, 23.66 feet, and 22.8 feet. Find the amount of border material needed.



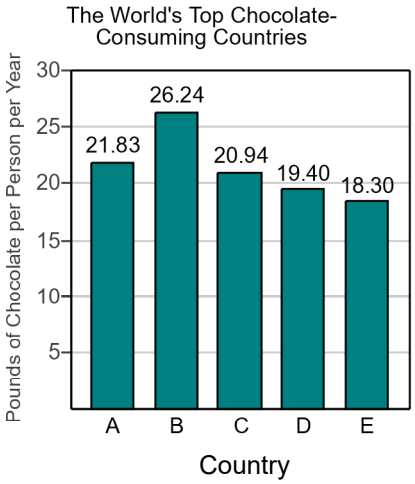
The amount of border material needed is ☐ feet.
(Type an integer or a decimal.)

Answer: 63.86

73.

The bar graph shows the top five chocolate-consuming nations in the world. Use this graph to answer the following.

Which country has the greatest chocolate consumption per person?



Choose the correct answer below.

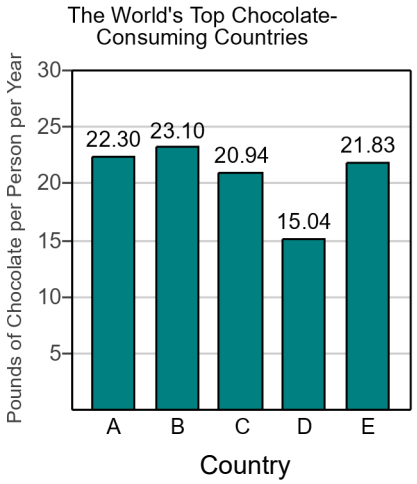
- Country B
- Country C
- Country D
- Country E
- Country A

Answer: Country B

74.

The bar graph shows the top five chocolate-consuming nations in the world. Use this graph to answer the following.

Make a chart listing the countries and their corresponding chocolate consumptions in order from greatest to least.



Complete the chart below.

	Country	Pounds of Chocolate per Person
(1)		
(2)		
(3)		
(4)		
(5)		

(1) ○ Country A ○ Country E ○ Country D ○ Country C ○ Country B

(2) ○ Country B ○ Country D ○ Country C ○ Country A ○ Country E

(3) ○ Country B ○ Country D ○ Country C ○ Country E ○ Country A

(4) ○ Country A ○ Country C ○ Country E ○ Country D ○ Country B

(5) ○ Country C ○ Country B ○ Country A ○ Country D ○ Country E

Answers (1) Country B

23.10

(2) Country A

22.30

(3) Country E

21.83

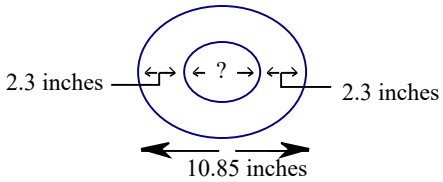
(4) Country C

20.94

(5) Country D

15.04

75. Find the unknown length in the figure.



The length is ____ inches.
(Type an integer or a decimal.)

Answer: 6.25

---

76. Use the values of the coins given below. Write the value of the group of coins shown to the right. To do so, it is usually easiest to start with the coin(s) of greatest value and end with the coin(s) of least value.

The total value of the group is $____.

Answer: 1.30

---

77. Use the values of the coins given to the right. Name the different ways that coins can have a value of $0.15 given that you may use no more than 10 coins.

Choose the correct answer below. Select all that apply.

- ☐ **A.** 2 nickels and 5 pennies
- ☐ **B.** 1 dime and 1 nickel
- ☐ **C.** 3 nickels
- ☐ **D.** 3 nickels and 5 pennies
- ☐ **E.** 1 dime and 5 pennies
- ☐ **F.** 1 dime, 3 nickels and 3 pennies

Answer: A. 2 nickels and 5 pennies, B. 1 dime and 1 nickel, C. 3 nickels, E. 1 dime and 5 pennies

---

78. Multiply.

0.17×6

$0.17 \times 6 =$ ____ (Type an integer or a decimal.)

Answer: 1.02

---

79. Multiply.

$$\begin{array}{r} 8.5 \\ \times 0.7 \\ \hline \end{array}$$

$$\begin{array}{r} 8.5 \\ \times 0.7 \\ \hline \end{array}$$

[ ] (Type an integer or a decimal.)

Answer: 5.95

---

80. Multiply.

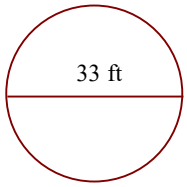
8.2×0.35

$8.2 \times 0.35 =$ [ ]

Answer: 2.870

---

81. Find the circumference of the circle in terms of π. Then use the approximation 3.14 for π and approximate the circumference.



a. Find the circumference of the circle in terms of π.

The exact circumference is [ ] ft.

b. Find the circumference of the circle using 3.14 as an approximation for π.

The approximate circumference is [ ] ft. (Round to the nearest hundredth as needed.)

Answers 33π

103.62

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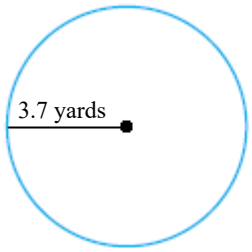
82. Find the circumference of the circle in terms of π. Then use the approximation 3.14 for π and approximate the circumference.



a. Find the circumference of the circle in terms of π.

The exact circumference is [ ] yd.

b. Find the circumference of the circle using 3.14 as an approximation for π.

The approximate circumference is [ ] yd. (Round to the nearest thousandth as needed.)

Answers 7.4π

23.236

83. A 1-ounce serving of cream cheese contains 6.4 grams of saturated fat. How much saturated fat is in 8 ounces of cream cheese?

[ ] g

Answer: 51.2

84. The screen of a portable digital device is a rectangle that measures 4.5 inches by 3.2 inches. Find the area of the screen.

The area is [ ] square inches. (Type an integer or a decimal.)

Answer: 14.4

85. The diameter of a ferris wheel is 200 feet. Find its circumference. Give an exact answer and an approximation using 3.14 for π.

The circumference is [ ] feet.
(Type an exact answer in terms of π.)

The circumference is approximately [ ] feet.
(Type an integer or a decimal. Round to the nearest hundredth as needed.)

Answers 200π

628.00

86. A meter is a unit of length approximately equal to 39.37 inches. If someone is 1.87 meters tall, what is his or her approximate height in inches?

Using the given conversion, someone who is 1.87 meters tall has a height of [ ] inches.
(Type an integer or a decimal.)

Answer: 73.6219

---

87. One year, farmers received an average of $13.065 per bushel of wheat. How much did a farmer receive for selling 100 bushels of wheat?

The farmer received $[ ]. (Round to the nearest cent as needed.)

Answer: 1306.50

---

88. Divide.

$3\overline{)11.1}$

The quotient is [ ].
(Type an integer or a decimal.)

Answer: 3.7

---

89. Divide.

$5\overline{)0.47}$

The quotient is [ ].
(Type an integer or a decimal.)

Answer: 0.094

---

90. Divide.

$0.04\overline{)24}$

The quotient is [ ].
(Type a whole number or a decimal.)

Answer: 600

---

91. Divide.

$0.71\overline{)4.189}$

The quotient is [ ].
(Type an integer or a decimal.)

Answer: 5.9

---

92. Divide.

$0.04\overline{)44}$

The quotient is [ ]. (Type a whole number or a decimal.)

Answer: 1100

---

93. Find the decimal equivalent of the following fraction.

$\frac{13}{20}$

$\frac{13}{20} =$ [ ]

Answer: 0.65

---

94. Write as an equivalent decimal.

$\frac{3}{4}$

$\frac{3}{4} =$ [ ]

Answer: 0.75

---

95. Write $5\frac{7}{20}$ as a decimal.

$5\frac{7}{20} =$ [ ]

Answer: 5.35

---

96. Write the numbers in order from smallest to largest.

0.453,0.458,0.45

In order, the given numbers are [ ].
(Use a comma to separate answers as needed.)

Answer: 0.45, 0.453, 0.458

---

97. Write the numbers in order from smallest to largest.

$4.32, 4.23, \frac{34}{8}$

Write the given numbers in order from smallest to largest.

[ ], [ ], [ ]

Answers 4.23

$\frac{34}{8}$

4.32

---

98. Simplify the expression.

$(0.4)^2 - 0.1$

$(0.4)^2 - 0.1 =$ [ ] (Type an integer or a decimal.)

Answer: 0.06

---

99. Find the value of the following expression. Give the result as a decimal.

$\frac{4}{5} - 9(7.8)$

$\frac{4}{5} - 9(7.8) =$ [ ] (Type an integer or a decimal.)

Answer: -69.4

---

100. Find the mean, median, and mode for the following set of numbers. If necessary, round the mean to one decimal place.

16, 21, 15, 23, 25

The mean is [ ].
(Type an integer or decimal rounded to one decimal place as needed. Use a comma to separate answers as needed.)

The median is [ ].
(Type an integer or decimal rounded to one decimal place as needed. Use a comma to separate answers as needed.)

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

- **A.** The mode is [ ].
  (Type an integer or decimal rounded to one decimal place as needed. Use a comma to separate answers as needed.)
- **B.** There is no mode.

Answers 20

21

B. There is no mode.

---

101. A stereo normally priced at $839 is on sale for 25% off. Find the discount and the sale price.

The discount is $[ ].

The sale price is $[ ].

Answers 209.75

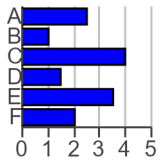
629.25

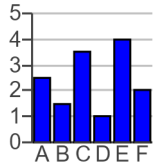
---

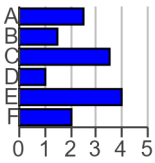
102. Use the information given to draw a vertical bar graph.

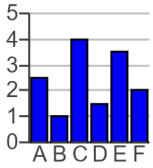
Fiber Content of Selected Foods	
Food	**Grams of Total Fiber**
A	2.5
B	1.0
C	4.0
D	1.5
E	3.5
F	2.0

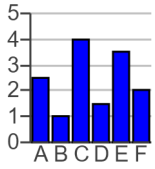
Choose the correct graph below.

A. 

B. 

C. 

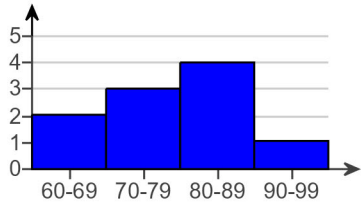
D. 

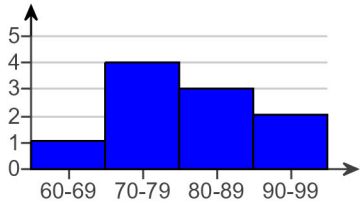
Answer: D. 

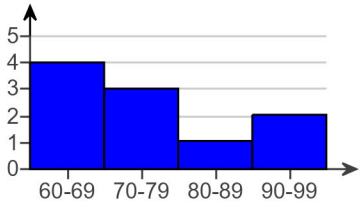
103. The frequency distributition of the golf scores for an amateur golfer is shown on the right. Use the frequency distribution to construct a histogram.

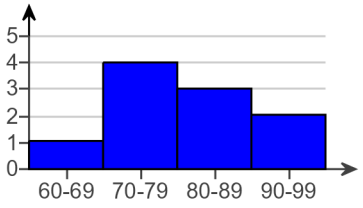
Class Intervals (Scores)	Class Frequency (Number of Games)
60-69	1
70-79	4
80-89	3
90-99	2

Which graph below is the correct histogram?

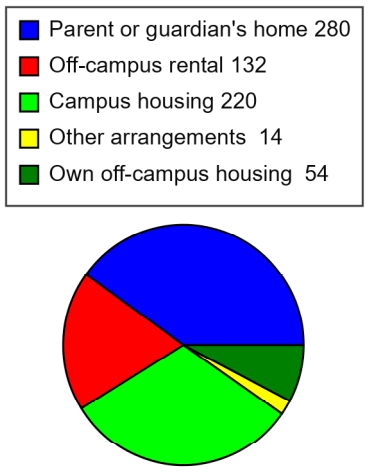
A. 

B. 

C. 

Answer: B. 

104. The circle graph is a result of surveying 700 college students. They were asked where they live while attending college. Use this graph to find where most of these college students live.



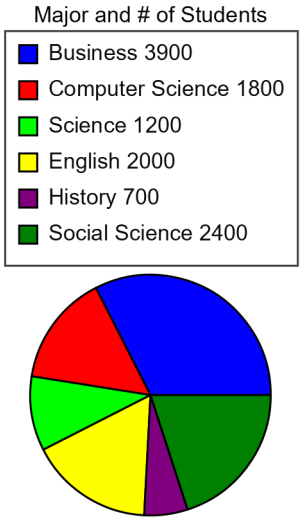
Choose the correct answer below.

- **A.** Campus housing
- **B.** Off-campus rental
- **C.** Other arrangements
- **D.** Own off-campus housing
- **E.** Parent or guardian's home

Answer: E. Parent or guardian's home

---

105. The circle graph shows the number of students at Rockford College who are enrolled in various majors. Find the ratio of Science majors to English majors.

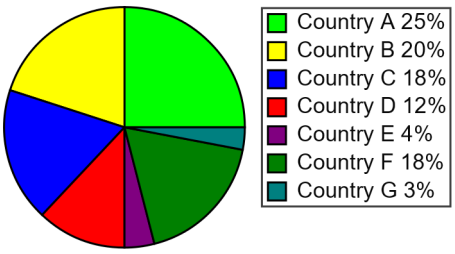


The ratio is ____.
(Type an integer or a simplified fraction.)

Answer: $\frac{3}{5}$

---

106. The total amount of land of some particular countries is approximately 73,000,000 square miles. Use the graph to find the area of the Country F.



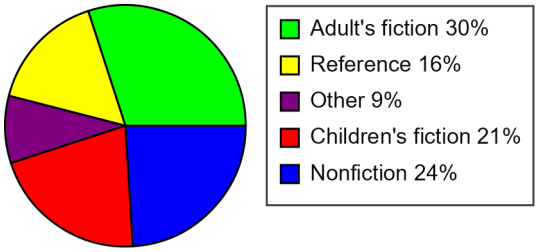
The area of the Country F is approximately ____ square miles.

Answer: 13,140,000

---

107. The circle graph to the right shows the percent of the types of books available in a library.

If the library has 126,000 books, find how many books are classified as Children's fiction.

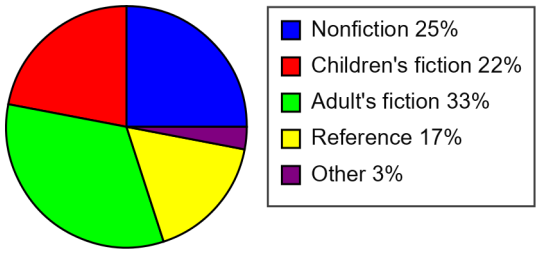


The number of books classified as Children's fiction is [ ].
(Type a whole number.)

Answer: 26,460

---

108. If this library has 220,000 books, find how many books are in the category of reference or other?



The number of books in the reference or other category is [ ] books.

Answer: 44,000

---

109. Find the square root.

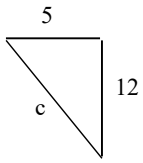
$\sqrt{25}$

$\sqrt{25}$ = [ ]

Answer: 5

---

110. Find the length of the third side of the right triangle.



The length of the third side is [ ].

Answer: 13

---

111. Sketch the right triangle and find the length of the side not given. If necessary, approximate the length to the nearest thousandth.

leg = 15, leg = 8

What is the length of the side not given?

[ ] (Round to the nearest thousandth as needed.)

Answer: 17

---

112. Sketch the right triangle and find the length of the side not given.

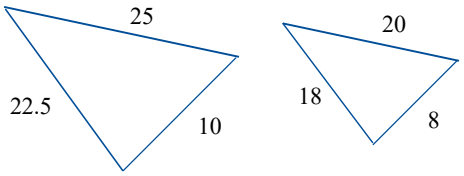
leg = 20, hypotenuse = 29

The unknown length is [ ].
(Type an integer or decimal rounded to the nearest thousandth as needed.)

Answer: 21

---

113. Find the ratio of the corresponding sides of the given similar triangles.

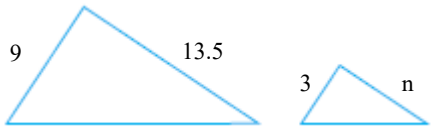


The ratio of the corresponding sides of the first triangle to the second triangle is [ ].
(Type the ratio as a simplified fraction.)

Answer: $\frac{5}{4}$

---

114. Given that the pair of triangles is similar, find the length of the side labeled n.

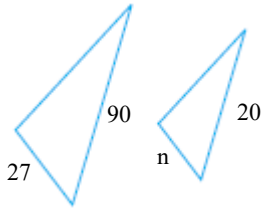


n = [ ]

Answer: 4.5

---

115. Given that the pair of triangles is similar, find the length of the side labeled n.

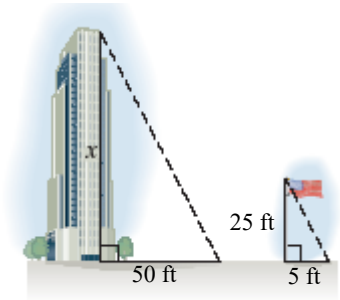


n = [ ]

Answer: 6

---

116. A triangle is formed by the building's height and shadow. Another triangle is formed by the flagpole's height and shadow. Using the following diagram, find the height of the building.



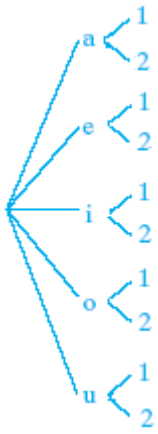
The height of the building is [ ] feet.

Answer: 250

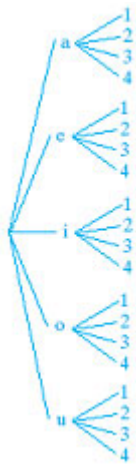
---

117. Draw a tree diagram for choosing a vowel, (a, e, i, o, u) and then a number (1, 2, 3 or 4). Use the diagram to find the number of possible outcomes.

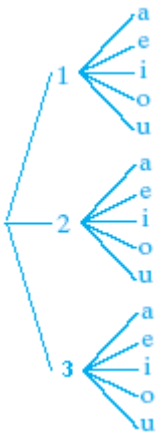
○ **A.**



○ **B.**



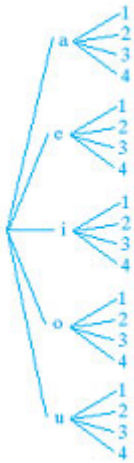
○ **C.**



○ **D.**

Based on the tree, what is the number of possible outcomes? [ ]

Answers

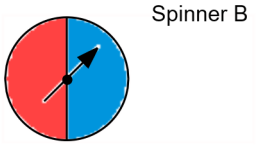


B.

20

118.

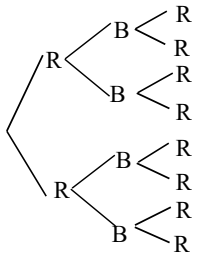
Draw a tree diagram for spinning Spinner B 3 times. Use the diagram to find the number of possible outcomes.



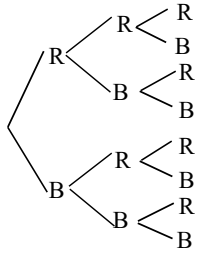
Based on the tree, what is the number of possible outcomes?

Choose the correct tree diagram below.

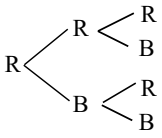
A.



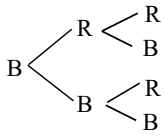
B.



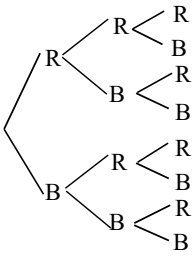
C.



D.



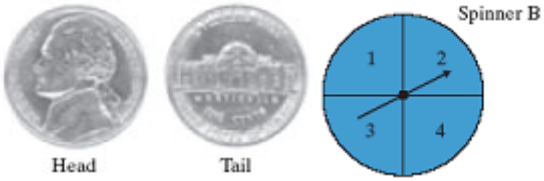
Answers



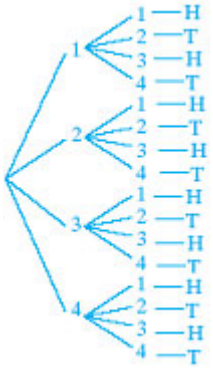
B.

8

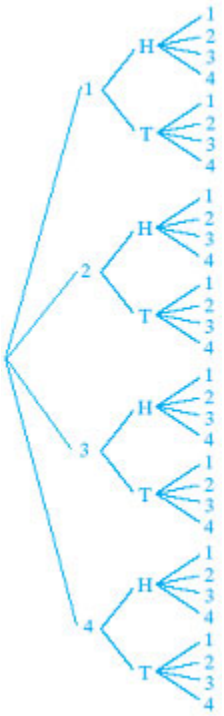
119. Draw a tree diagram for tossing a coin two times and spinning Spinner B two times. Use the diagram to find the number of possible outcomes.



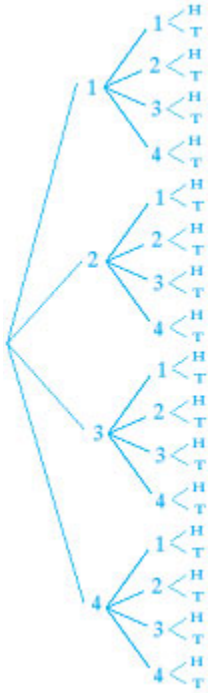
A.



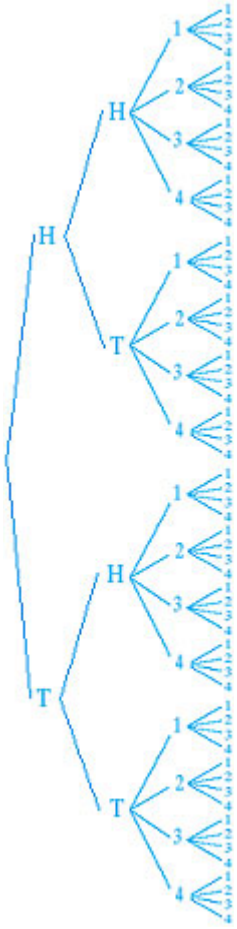
B.



C.

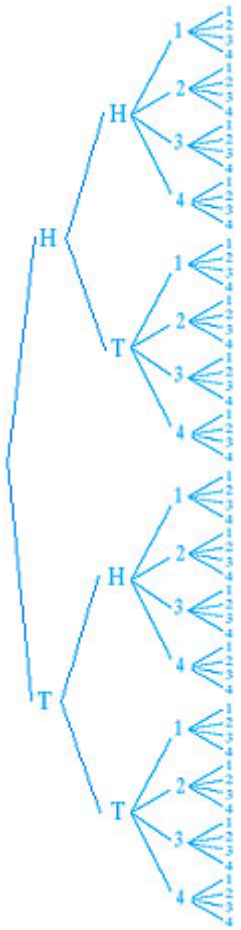


D.



Based on the tree, what is the number of possible outcomes? [ ]

Answers



D.

64

---

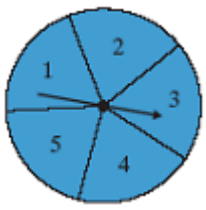
120. If a single 8-sided die is tossed once, find the probability of rolling an odd number.

The probability is ____. (Type an integer or a simplified fraction.)

Answer: $\frac{1}{2}$

---

121. Suppose the spinner shown is spun once. Find the probability of spinning 3.



The probability is ____. (Type an integer or a simplified fraction.)

Answer: $\frac{1}{5}$

---

122. A marble is selected at random from a jar containing 2 red marbles, 3 yellow marbles, and 6 green marbles.

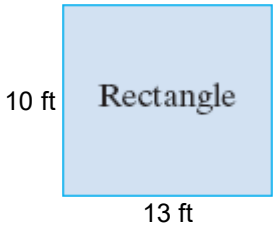
What is the probability that the marble is red?

The probability that the marble is red is [ ]. (Type an integer or a simplified fraction.)

Answer: $\frac{2}{11}$

---

123. Find the perimeter of the following figure.



Perimeter = [ ] (1) [ ]

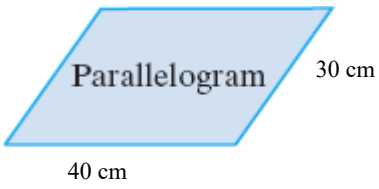
(1) ○ sq. ft
○ ft

Answers 46

(1) ft

---

124. Find the perimeter of the following figure.



Perimeter = [ ] (1) [ ]

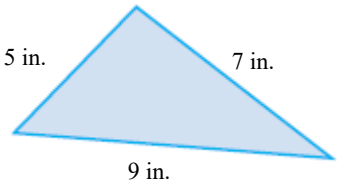
(1) ○ cm
○ sq. cm

Answers 140

(1) cm

---

125. Find the perimeter of the following figure.



The perimeter is _____ (1) _____

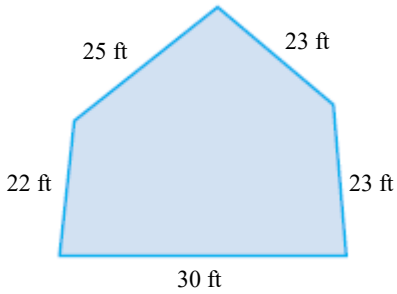
(1) ○ in.
○ sq. in.

Answers 21

(1) in.

---

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



Perimeter = _____ (1) _____

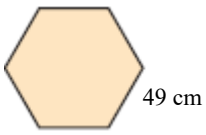
(1) ○ sq. ft.
○ ft.

Answers 123

(1) ft.

---

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



Perimeter = _____ (1) _____

(1) ○ cm
○ sq cm

Answers 294

(1) cm

---

128. A computer has shape of a rectangular solid. Find the volume of the computer, with dimensions of 4 inches by 4 inches by 4.6 inches.

The volume of the computer is ____ (1) ____
(Simplify your answer. Type an integer or a decimal.)

(1) ○ in.
○ cu in.
○ sq in.

Answers 73.6

(1) cu in.

---

129. Convert the measurement indicated.

144 in to feet

144 in = ____ ft

Answer: 12

---

130. Convert the measurement as indicated.

13 yd to feet

13 yd = ____ ft

Answer: 39

---

131. Convert the measurement as indicated.

$13\frac{1}{2}$ ft to inches

$13\frac{1}{2}$ ft = ____ in (Simplify your answer. Type an integer, fraction, or mixed number.)

Answer: 162

---

132. Convert the measurement as indicated.

28 ft to yards

28 ft = ____ yd (Simplify your answer. Type an integer, fraction, or mixed number.)

Answer: $9\frac{1}{3}$

---

133. Convert the measurement as indicated.

21 in to feet

21 in = [ ] ft (Type an integer or a decimal.)

Answer: 1.75

---

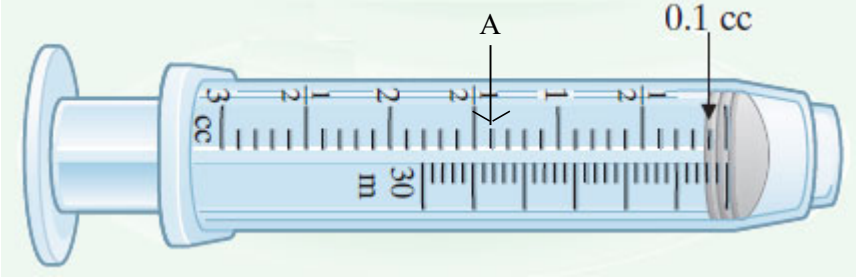
134. A woman drank 630 ml of water from a 2-liter bottle. How much water remains in the bottle?

There are [ ] L of water remaining in the bottle.

Answer: 1.37

---

135. A common syringe is one with a capacity of 3 cc. Use the diagram and give the measurement indicated by the arrow.



The measurement indicated by the arrow is [ ] cc. (Type an integer or a decimal.)

Answer: 1.4

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136. Use the commutative and associative properties to simplify the expression.

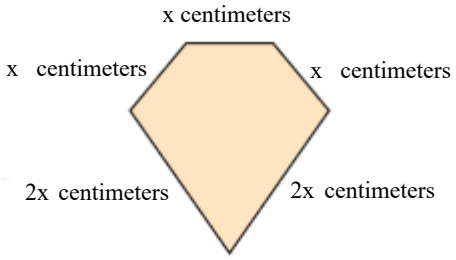
(7 + a) + 7

(7 + a) + 7 = [ ]

Answer: a + 14

---

137. The perimeter of a geometric figure is the sum of the lengths of its sides. The perimeter of the pentagon (five-sided figure) on the right is 14 centimeters.
a. Write an equation for perimeter.
b. Solve the equation in part (a).
c. Find the length of each side.



a. Choose the correct answer below.

- **A.** $x + x + x + 2x + 2x = 7$
- **B.** $x + x + x + 2x + 2x = 14$
- **C.** $x + x + x + x + x = 14$
- **D.** $4x^5 = 14$

b. $x =$ [ ] (Simplify your answer.)

c. The shorter sides have a length of [ ] (1) [ ] (Simplify your answer.)

The longer sides have a length of [ ] (2) [ ] (Simplify your answer.)

(1) cm. cm^2. (2) cm. cm^2.

Answers B. $x + x + x + 2x + 2x = 14$

2

2

(1) cm.

4

(2) cm.

138. The governor of state A earns $48,055 more than the governor of state B. If the total of their salaries is $298,965, find the salaries of each.

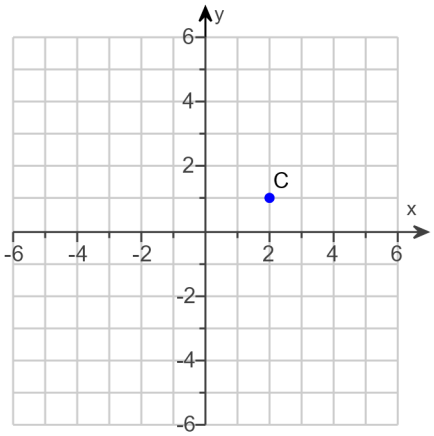
The governor of state A earns $[ ], and the governor of state B earns $[ ].

Answers 173,510

125,455

139.

Find the x- and y-coordinates of the point C.



The coordinates of C are [ ].
(Type an ordered pair.)

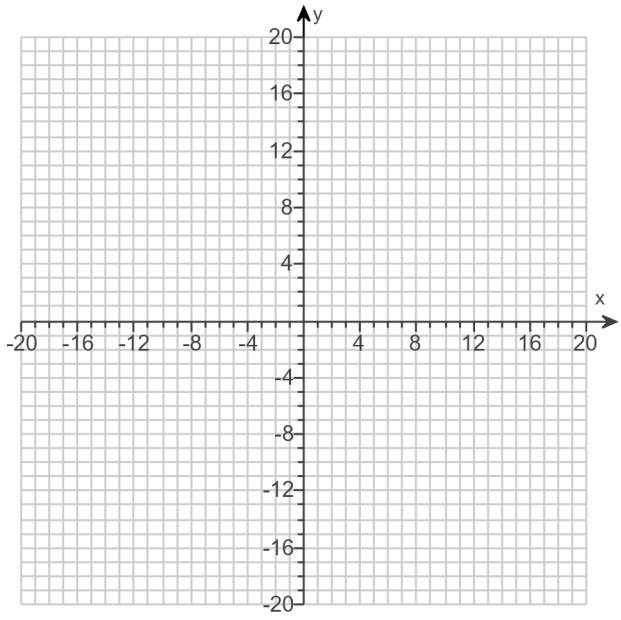
Answer: (2,1)

140.

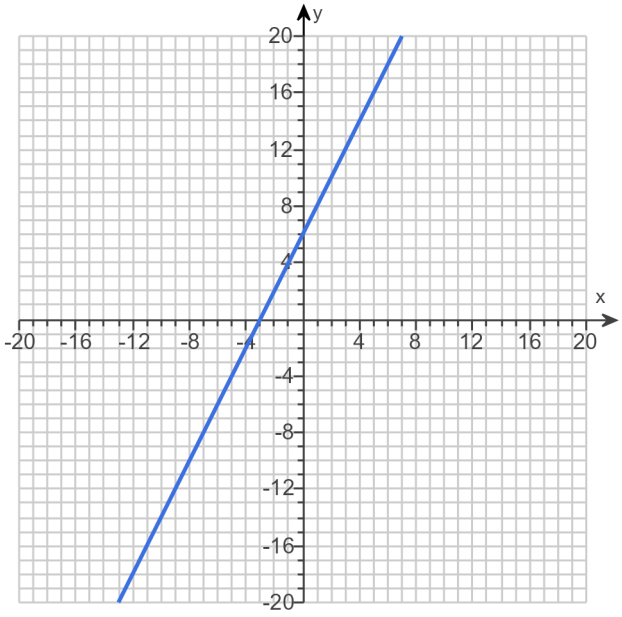
Graph the equation.

$y = 2x + 6$

Use the graphing tool to graph the line.



Answer:

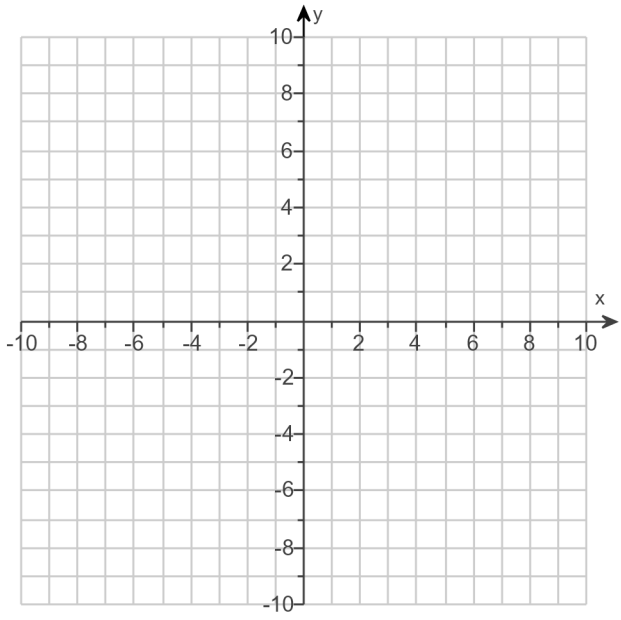


141.

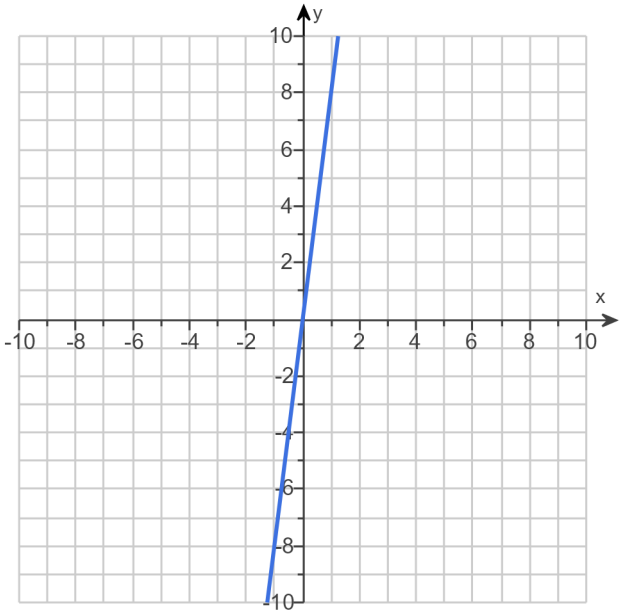
Graph the linear equation.

$y = 8x$

Use the graphing tool to graph the linear equation.



Answer:

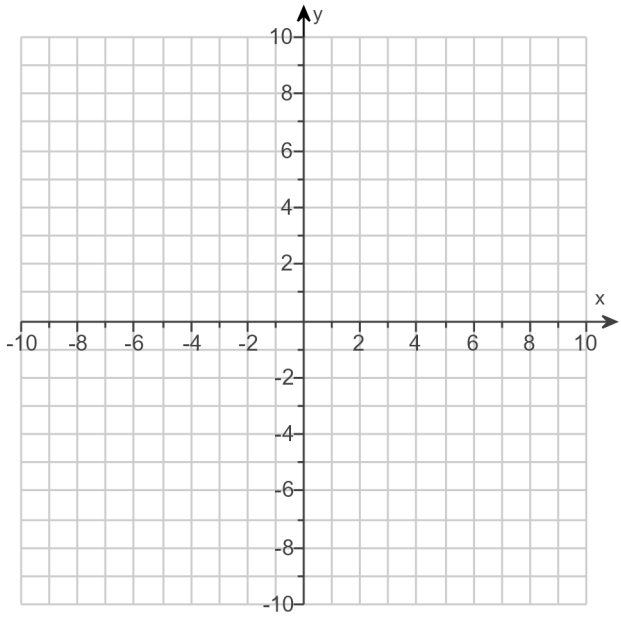


142.

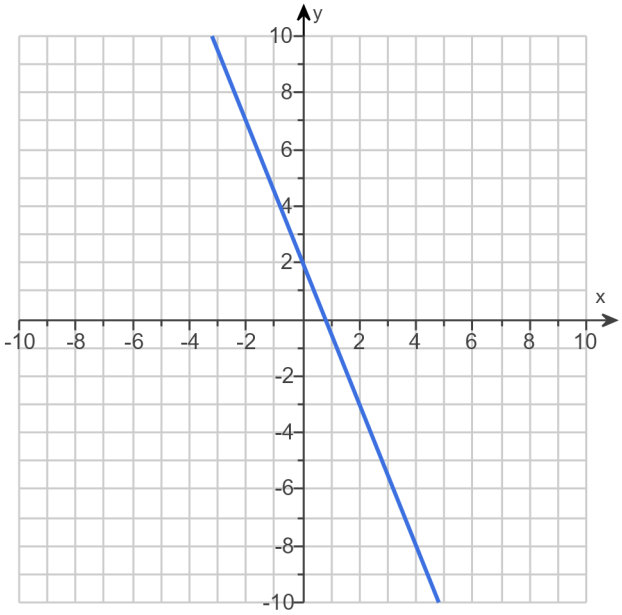
Graph the linear equation.

$y = -2.5x + 2$

Use the graphing tool to graph the equation.



Answer:



143. Given the following function, find f(− 5), f(0), and f(4).

$f(x) = 5x - 3$

f(− 5) = ☐

f(0) = ☐

f(4) = ☐

Answers − 28

− 3

17

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144. Given the following function, find f(− 4), f(0), and f(4).

$f(x) = x^2 - 4$

f(− 4) = ☐

f(0) = ☐

f(4) = ☐

Answers 12

− 4

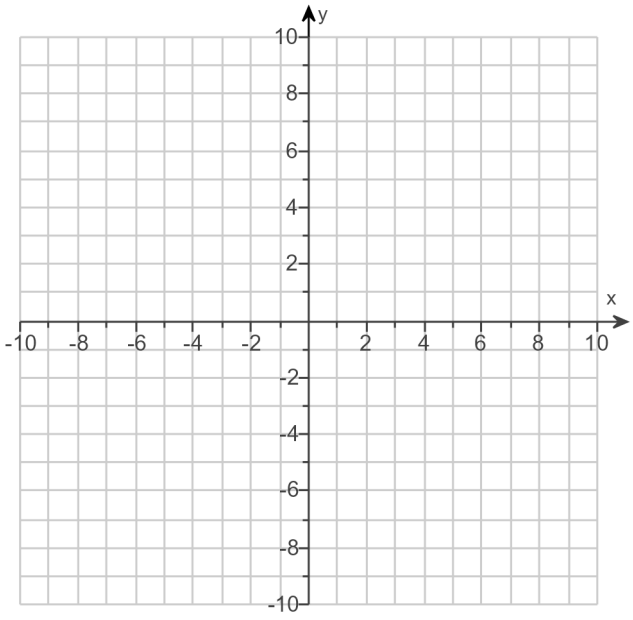
12

145.

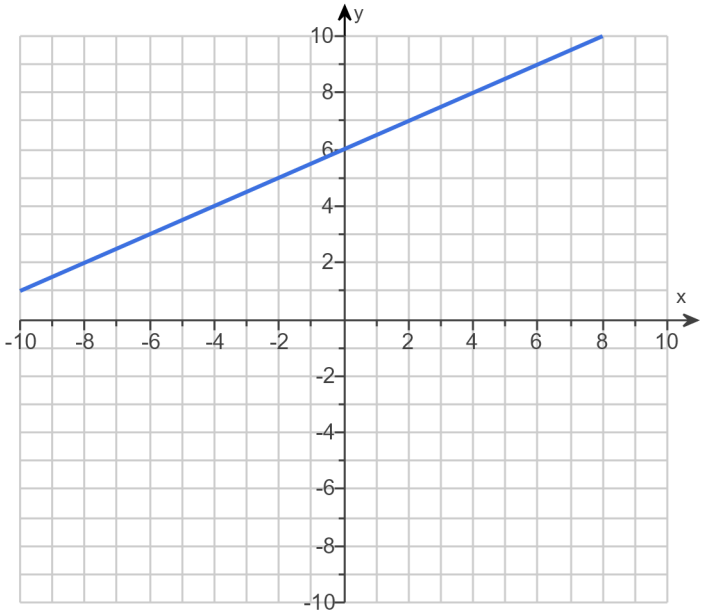
Graph the linear equation.

$$f(x) = \frac{1}{2}x + 6$$

Use the graphing tool to graph the linear equation.



Answer:

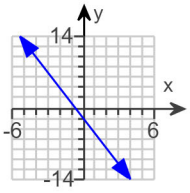


146. Graph the function.

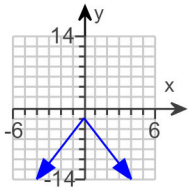
$f(x) = 3x - 2$

Choose the correct graph below.

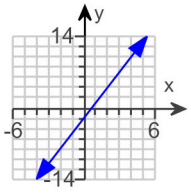
A.



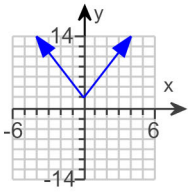
B.



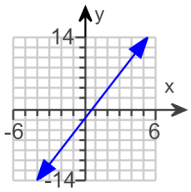
C.



D.



Answer:



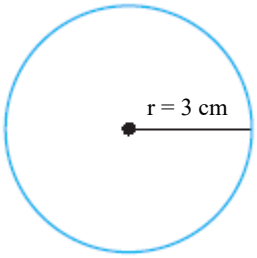
C.

147. The function $f(x) = 0.16x + 10.2$ can be used to predict diamond production. For this function, x is the number of years after 2000, and f(x) is the value (in billions of dollars) of the year's diamond production. Use this function to predict diamond production in 2007.

The diamond production in 2007 is predicted to be $[ ] billion.
(Type an integer or a decimal.)

Answer: 11.32

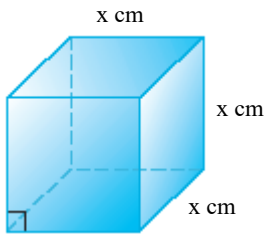
148. The function $A(r) = \pi r^2$ may be used to find the area of a circle with radius r. Find the area of a circle whose radius is 3 centimeters.



The area of a circle is [ ] square centimeters.
(Type an exact answer in terms of π.)

Answer: 9π

149. The function $V(x) = x^3$ may be used to find the volume of a cube with side length x. Find the volume of a cube whose side is 9 centimeters.



The volume is [ ] cubic centimeters. (Type an integer or a decimal.)

Answer: 729

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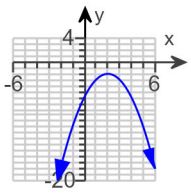
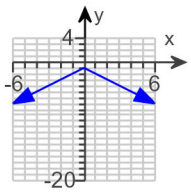
150. Graph $y = x^2 - 4x + 6$. Let $x = 0, 1, 2, 3, 4$ to generate ordered pair solutions.

Choose the correct graph below.

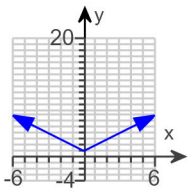
A.



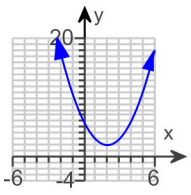
B.



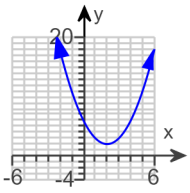
C.



D.



Answer:



D.