

Student: \_\_\_\_\_  
Date: \_\_\_\_\_

Instructor: Alfredo Alvarez  
Course: Martin-Gay Basic Math

Assignment: MATH123FIESTAD101

1. Add.

$$\begin{array}{r} 82 \\ + 16 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ + 16 \\ \hline 98 \end{array}$$

The sum is

Answer: 98

2. Add.

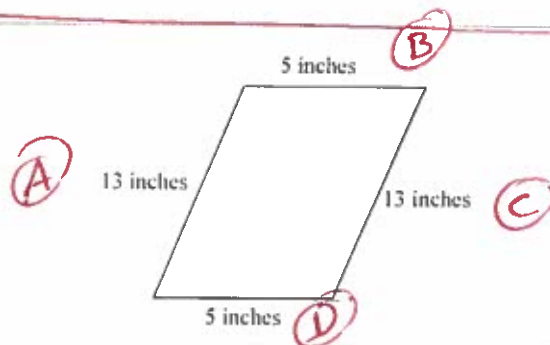
$$\begin{array}{r} 13 \\ 21 \\ + 44 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \\ 21 \\ + 44 \\ \hline 78 \end{array}$$

The sum is

Answer: 78

3. Find the perimeter of the figure.



$$\begin{array}{r} 13 \\ + 5 \\ \hline 18 \\ 18 \\ + 13 \\ \hline 31 \end{array}$$

The perimeter is  (1)

- (1) ☐ square inches.  
☐ cubic inches.  
☐ inches.

$$\begin{aligned} P &= A + B + C + D \\ P &= 13 + 5 + 13 + 5 \\ P &= 18 + 13 + 5 \\ P &= 31 + 5 \end{aligned}$$

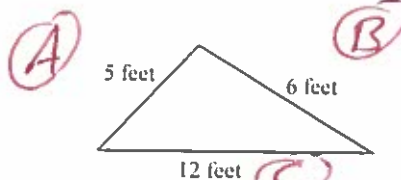
$$\begin{array}{r} 31 \\ + 5 \\ \hline 36 \end{array}$$

Answers 36

(1) inches.

$$P = 36$$

4. Find the perimeter of the figure.



$$\begin{array}{r} 5 \\ + 6 \\ \hline 11 \\ + 12 \\ \hline 23 \end{array}$$

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

$$\begin{aligned} P &= A + B + C \\ P &= 5 + 6 + 12 \\ P &= 11 + 12 \end{aligned}$$

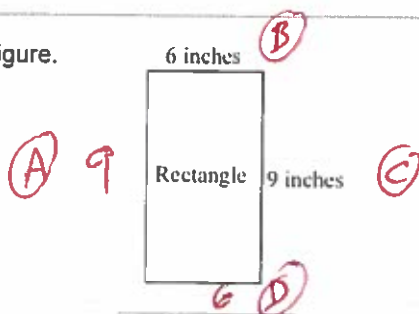
$$P = 23$$

- (1) ☐ cubic feet.  
☐ square feet.  
☐ feet.

Answers 23

(1) feet.

5. Find the perimeter of the figure.



$$\begin{aligned} P &= A + B + C + D \\ P &= 9 + 6 + 9 + 6 \\ P &= 15 + 9 + 6 \\ P &= 24 + 6 \end{aligned}$$

$$P = 30$$

$$\begin{array}{r} 9 \\ + 6 \\ \hline 15 \\ + 9 \\ \hline 24 \\ + 6 \\ \hline 30 \end{array}$$

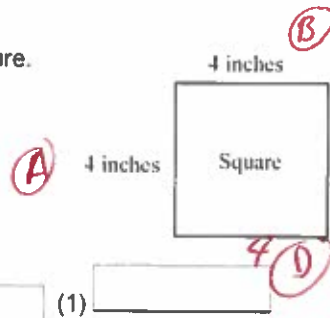
The perimeter is  (1)   
(Type a whole number.)

- (1) ☐ inches.  
☐ square inches.  
☐ cubic inches.

Answers 30

(1) inches.

6. Find the perimeter of the figure.



The perimeter is  (1)

- (1) ☐ cubic inches.  
☐ inches.  
☐ square inches.

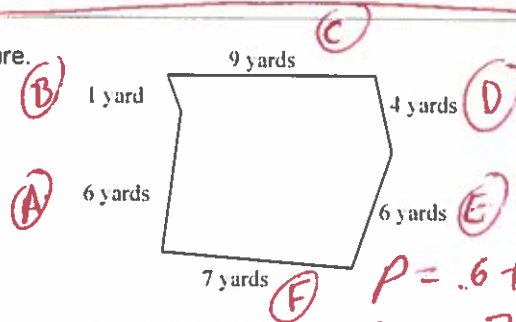
Answers 16

(1) inches.

$$\begin{aligned}
 P &= A + B + C + D \\
 P &= 4 + 4 + 4 + 4 \\
 P &= 8 + 4 + 4 \\
 P &= 12 + 4 \\
 P &= 16
 \end{aligned}$$

$$\begin{array}{r}
 4 \\
 +4 \\
 \hline
 8 \\
 8 \\
 +4 \\
 \hline
 12 \\
 12 \\
 +4 \\
 \hline
 16
 \end{array}$$

7. Find the perimeter of the figure.



The perimeter is  (1)

- (1) ☐ yards.  
☐ square yards.  
☐ cubic yards.

Answers 33

(1) yards.

$$\begin{aligned}
 P &= A + B + C + D + E + F \\
 P &= 1 + 9 + 4 + 6 + 7 \\
 P &= 16 + 4 + 6 + 7 \\
 P &= 20 + 6 + 7 \\
 P &= 26 + 7 \\
 P &= 33
 \end{aligned}$$

$$\begin{array}{r}
 6 \\
 +1 \\
 \hline
 7 \\
 7 \\
 +9 \\
 \hline
 16 \\
 16 \\
 +4 \\
 \hline
 20 \\
 20 \\
 +6 \\
 \hline
 26 \\
 26 \\
 +7 \\
 \hline
 33
 \end{array}$$

8. What is 285 increased by 34?

285 increased by 34 is .

Answer: 319

$$\begin{array}{r}
 285 \\
 + 34 \\
 \hline
 319
 \end{array}$$

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

The perimeter is  (1)

- (1) ☐ cubic feet.  
☐ square feet.  
☐ feet.

Answers 364

(1) feet.

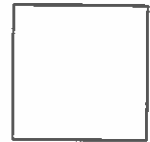
$$P = A + B + C + D$$

$$P = 91 + 91 + 91 + 91$$

$$P = 182 + 91 + 91$$

$$P = 273 + 91$$

$$P = 364$$



91 ft

91 ft

$$\begin{array}{r} 91 \\ + 91 \\ \hline 182 \end{array}$$

$$\begin{array}{r} 182 \\ + 91 \\ \hline 273 \\ + 91 \\ \hline 364 \end{array}$$

10. 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     | 34               |
| B     | 122              |
| C     | 72               |
| D     | 42               |
| E     | 75               |
| F     | 62               |
| G     | 55               |
| H     | 77               |
| K     | 49               |
| L     | 108              |

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

Answer: (1) B

11. Find the difference.

$$12 - 12$$

$$12 - 12 = \text{$$

Answer: 0

$$\begin{array}{r} 12 \\ - 12 \\ \hline 0 \end{array}$$

12. Subtract.

$$\begin{array}{r} 55 \\ - 32 \\ \hline \end{array}$$

The difference is 

Answer: 23

$$\begin{array}{r} 55 \\ - 32 \\ \hline 23 \end{array}$$

13. Subtract.

$$\begin{array}{r} 71 \\ - 33 \\ \hline \end{array}$$

The difference is 

Answer: 38

$$\begin{array}{r} 71 \\ - 33 \\ \hline 38 \end{array}$$

14. Subtract. Check by adding.

$$\begin{array}{r} 90 \\ - 77 \\ \hline \end{array}$$

The difference is 

Answer: 13

$$\begin{array}{r} 90 \\ - 77 \\ \hline 13 \end{array}$$

Check

$$\begin{array}{r} 77 \\ + 13 \\ \hline 90 \end{array}$$

15. Subtract 6 from 7.

The difference is 

Answer: 1

$$\begin{array}{r} 7 \\ - 6 \\ \hline 1 \end{array}$$

16. Find the difference of 88 and 46.

The difference is 

Answer: 42

$$\begin{array}{r} 88 \\ - 46 \\ \hline 42 \end{array}$$

17. Subtract 38 from 90.

The difference is 

Answer: 52

$$\begin{array}{r} 90 \\ - 38 \\ \hline 52 \end{array}$$

18. Find 52 subtracted from 100.

The difference is .

Answer: 48

$$\begin{array}{r} 100 \\ - 52 \\ \hline 48 \end{array}$$

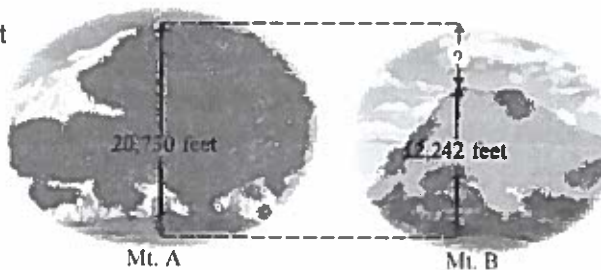
19. Evelyn Abrams is reading a 646-page book. If she has just finished reading page 171, how many more pages must she read to finish the book?

 pages

Answer: 475

$$\begin{array}{r} 646 \\ - 171 \\ \hline 475 \end{array}$$

20. The peak of Mt. A is 20,730 feet above sea level. The peak of Mt. B is 12,242 feet above sea level. How much higher is the peak of Mt. A than Mt. B?



$$\begin{array}{r} 20730 \\ - 12242 \\ \hline 8488 \end{array}$$

The peak of Mt. A is  feet higher than the peak of Mt. B.

Answer: 8488

21. Suppose one dam is 583 feet high. Another dam is 569 feet high. How much taller is the first dam than the second dam?

The first dam is  feet taller than the second dam.

Answer: 14

$$\begin{array}{r} 583 \\ - 569 \\ \hline 14 \end{array}$$

22. Subtract.

43 - 36

The answer is .

Answer: 7

$$\begin{array}{r} 43 \\ - 36 \\ \hline 7 \end{array}$$

23. Round 915 to the nearest ten.

915 rounded to the nearest ten is .

Answer: 920

$$915 \xrightarrow{\text{ten}} 920$$

Since 5  $\geq$  5  
round up



24. Round 2,264 to the nearest hundred.

The number 2,264 rounded to the nearest hundred is 

Answer: 2,300

 $2264 =$  since  $6 \geq 5$   
round up

2300

25. Round 697 to the nearest ten.

697 rounded to the nearest ten is 

Answer: 700

 $697 =$  since  $7 \geq 5$   
round up

700

26. Round 27,343 to the nearest thousand.

27,343 rounded to the nearest thousand is 

Answer: 27,000

 $27343 =$  since  $3 < 5$   
do not round up

27,000

27. A university had a total undergraduate enrollment of 31,946 students in fall 2012. Round this number to the nearest thousand.

The total undergraduate enrollment of students, rounded to the nearest thousand is 

Answer: 32,000

 $31946 =$   
since  $9 \geq 5$   
round up

32,000

28. Estimate the difference by rounding each number to the nearest hundred.

$$\begin{array}{r} 1673 \\ - 1392 \\ \hline \end{array}$$

The estimated difference is 

Answer: 300

$$\begin{array}{r} 1700 \\ - 1400 \\ \hline 300 \end{array}$$

rounding first

29. Use the distributive property to rewrite each expression.

$4(3 + 6)$

$4(3 + 6) = \text{  }$

(Type an expression. Do not simplify.)

Answer:  $4 \cdot 3 + 4 \cdot 6$ 

$$\begin{array}{l} 4(3 + 6) = \\ 4 \cdot 3 + 4 \cdot 6 = \end{array}$$

30. Multiply.

$$\begin{array}{r} 62 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ \times 5 \\ \hline 310 \end{array}$$

Answer: 310

31. Multiply.

$$\begin{array}{r} 932 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 932 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 932 \\ \times 6 \\ \hline 5592 \end{array}$$

Answer: 5592

32. Multiply.

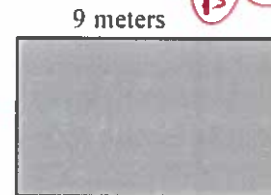
$$\begin{array}{r} 73 \\ \times 68 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ \times 68 \\ \hline 584 \\ 438 \\ \hline 4964 \end{array}$$

The product is

Answer: 4964

33. 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) ☐ square meters. (2) ☐ square meters.  
☐ meters. ☐ meters.  
☐ cubic meters. ☐ cubic meters.

Answers 36

(1) square meters.

26

(2) meters.

$$\begin{aligned} A &= LW \\ A &= (4)(9) \\ A &= 36 \end{aligned}$$

$$\begin{aligned} P &= A + B + C + D \\ P &= 4 + 9 + 4 + 9 \\ P &= 13 + 4 + 9 \\ P &= 17 + 9 \end{aligned}$$

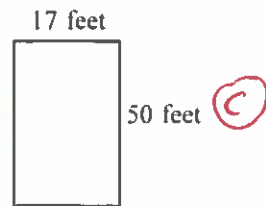
$$P = 26$$

$$\begin{array}{r} 4 \\ + 9 \\ \hline 13 \\ 13 \\ + 4 \\ \hline 17 \\ 17 \\ + 9 \\ \hline 26 \end{array}$$



34.

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) ☐ square feet.      (2) ☐ cubic feet.  
☐ feet.                      ☐ feet.  
☐ cubic feet.              ☐ square feet.

Answers 850

(1) square feet.

134

(2) feet.

$$A = LW$$

$$A = (50)(17)$$

$$A = 850$$

$$P = A + B + C + D$$

$$P = 50 + 17 + 50 + 17$$

$$P = 67 + 50 + 17$$

$$P = 117 + 17$$

$$P = 134$$

$$\begin{array}{r} 3 \\ 17 \\ \times 50 \\ \hline 00 \\ 85 \\ \hline 850 \end{array}$$

$$\begin{array}{r} 50 \\ + 17 \\ \hline 67 \\ 67 \\ + 50 \\ \hline 117 \\ 117 \\ + 17 \\ \hline 134 \end{array}$$

35. Find the sum of 29 and 5.

The sum is .

Answer: 34

$$\begin{array}{r} 29 \\ + 5 \\ \hline 34 \end{array}$$

36. Find the difference of 17 and 4.

The difference is . (Simplify your answer.)

Answer: 13

$$\begin{array}{r} 17 \\ - 4 \\ \hline 13 \end{array}$$

37. Find the following quotient.

$$45 \div 5$$

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

- ☐ A.  $45 \div 5 =$   (Simplify your answer.)  
☐ B. The answer is undefined.

Answer: A.  $45 \div 5 =$   9 (Simplify your answer.)

$$\frac{45}{5}$$

$$\begin{array}{r} 9 \\ 5 \overline{) 45} \\ \underline{-(45)} \\ 0 \text{ rem} \end{array}$$

38. Find the following quotient.

$$60 \div 6$$

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

- ☐ A.  $60 \div 6 =$  \_\_\_\_\_ (Simplify your answer.)
- ☐ B. The answer is undefined.

Answer: A.  $60 \div 6 =$   (Simplify your answer.)

$$\frac{60}{6} = 10$$
$$\begin{array}{r} 10 \\ 6 \overline{)60} \\ \underline{-(6)} \\ 0 \\ \underline{-(0)} \\ 0 \text{ rem} \end{array}$$

39. Find the following quotient.

$$0 \div 8$$

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

- ☐ A.  $0 \div 8 =$  \_\_\_\_\_ (Simplify your answer.)
- ☐ B. The quotient is undefined.

Answer: A.  $0 \div 8 =$   (Simplify your answer.)

$$\frac{0}{8} = 0$$
$$\begin{array}{r} 0 \\ 8 \overline{)0} \\ \underline{-(0)} \\ 0 \end{array}$$

40. Find the following quotient.

$$45 \div 1$$

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

- ☐ A.  $45 \div 1 =$  \_\_\_\_\_ (Simplify your answer.)
- ☐ B. The answer is undefined.

Answer: A.  $45 \div 1 =$   (Simplify your answer.)

$$\frac{45}{1} = 45$$
$$\begin{array}{r} 45 \\ 1 \overline{)45} \\ \underline{-(4)} \\ 5 \\ \underline{-(5)} \\ 0 \text{ rem} \end{array}$$

41. Find the following quotient.

$$\frac{40}{40}$$

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

- ☐ A.  $\frac{40}{40} =$  \_\_\_\_\_ (Simplify your answer.)
- ☐ B. The answer is undefined.

Answer: A.  $\frac{40}{40} =$   (Simplify your answer.)

$$\frac{40}{40} = 1$$
$$\begin{array}{r} 1 \\ 40 \overline{)40} \\ \underline{-(40)} \\ 0 \text{ rem} \end{array}$$

42. Find the quotient.

$$\frac{45}{5}$$

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

- ☐ A.  $\frac{45}{5} =$  \_\_\_\_\_
- ☐ B. The answer is undefined.

Answer: A.  $\frac{45}{5} =$

$$\frac{45}{5}$$

$$\begin{array}{r} 9 \\ 5 \overline{)45} \\ \underline{-(45)} \\ 0 \text{ rem} \end{array}$$

43. Find the following quotient.

$$56 \div 7$$

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

- ☐ A.  $56 \div 7 =$  \_\_\_\_\_ (Simplify your answer.)
- ☐ B. The answer is undefined.

Answer: A.  $56 \div 7 =$   (Simplify your answer.)

$$\frac{56}{7}$$

$$\begin{array}{r} 8 \\ 7 \overline{)56} \\ \underline{-(56)} \\ 0 \text{ rem} \end{array}$$

44. Divide the following and then check by multiplying.

$$3 \overline{)84}$$

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 .

$$\begin{array}{r} 28 \\ 3 \overline{)84} \\ \underline{-(61)} \\ 24 \\ \underline{-(24)} \\ 0 \text{ rem} \end{array}$$

check

$$\begin{array}{r} 28 \\ \times 3 \\ \hline 84 \end{array} \quad \checkmark$$

45. Divide the following and then check by multiplying.

$48 \div 8$

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 .

$$\begin{array}{r} 48 \\ 8 \overline{)48} \\ \underline{48} \\ 0 \end{array}$$

6

0 rem

46. Divide the following and then check by multiplying.

$8 \overline{)469}$

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  R .

$$\begin{array}{r} 58 \\ 8 \overline{)469} \\ \underline{40} \\ 69 \\ \underline{64} \\ 5 \end{array}$$

58 R 5

OR  $58 \frac{5}{8}$

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

20, 25, 12, 26, 18, 19

The average value is .

Answer: 20

$$\begin{array}{r} 20 + 25 + 12 + 26 + 18 + 19 \\ \hline 120 \\ \div 6 \\ \hline 20 \end{array}$$

20

48. What is the total of 32 and 8?

The total of 32 and 8 is .

Answer: 40

$$\begin{array}{r} 32 \\ + 8 \\ \hline 40 \end{array}$$

49. 40 times 30 is what number?

40 times 30 is .

Answer: 1200

$$\begin{array}{r} 30 \\ \times 40 \\ \hline 1200 \end{array}$$

50. A vacant lot in the shape of a rectangle measures 70 feet by 50 feet.

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

(L)

(A)

50 feet



70 feet

50 (C)

a. The perimeter of the lot is  (1)

b. The area of the lot is  (2)

- (1) ☐ feet. ☐ square feet. ☐ cubic feet.  
(2) ☐ cubic feet. ☐ feet. ☐ square feet.

$$P = A + B + C + D$$

$$P = 50 + 70 + 50 + 70$$

$$P = 120 + 50 + 70$$

$$P = 170 + 70$$

$$P = 240$$

$$\begin{array}{r} 50 \\ + 70 \\ \hline 120 \end{array}$$

$$\begin{array}{r} 120 \\ + 50 \\ \hline 170 \end{array}$$

$$\begin{array}{r} 170 \\ + 70 \\ \hline 240 \end{array}$$

Answers 240

(1) feet.

3500

(2) square feet.

$$A = L \times W$$

$$A = (50)(70)$$

$$A = 3500$$

$$\begin{array}{r} 70 \\ \times 50 \\ \hline 00 \end{array}$$

$$\begin{array}{r} 350 \\ \times 10 \\ \hline 3500 \end{array}$$

51. There are 24 hours in a day. How many hours are in 3 days?

There are  hours in 3 days.

Answer: 72

$$\begin{array}{r} 24 \\ \times 3 \\ \hline 72 \end{array}$$

52. The average weekly pay for a records clerk is \$760. If the clerk works 40 hours in one week, what is his or her hourly pay?

The hourly pay is \$  an hour.

Answer: 19

$$\begin{array}{r} 40 \overline{) 760} \\ - (40) \\ \hline 360 \\ - (360) \\ \hline 0 \end{array}$$

53. Six ounces of canned fish in oil has 306 calories. How many calories does 1 ounce have?

One ounce of canned fish in oil will have  calories. (Simplify your answer.)

Answer: 51

$$\begin{array}{r} 6 \overline{) 306} \\ - (30) \\ \hline 6 \end{array}$$

54. Find the value of the expression.

$$5^2$$

$$5^2 = \text{$$

Answer: 25

$$5^2 =$$

$$5 \times 5 =$$

$$25 =$$

$$\begin{array}{r} 6 \\ - (6) \\ \hline 0 \text{ rem} \end{array}$$

55. Find the square root.

$$\sqrt{25}$$

Answer: 5

$$\sqrt{25} = 5$$

$$\sqrt{25} = \boxed{\phantom{00}}$$

$$5^2 = 25$$

56. Simplify.

$$25 + 5 \cdot 8$$

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

- ☐ A.  $25 + 5 \cdot 8 =$    
☐ B. The expression is undefined.

Answer: A.  $25 + 5 \cdot 8 =$  65

PEMDAS

$$25 + 5 \cdot 8 =$$

$$25 + 40 =$$

$$65 =$$

57. Simplify.

$$36 \div 6 - 3$$

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

- ☐ A.  $36 \div 6 - 3 =$    
☐ B. The expression is undefined.

Answer: A.  $36 \div 6 - 3 =$  3

PEMDAS

$$36 \div 6 - 3 =$$

$$6 - 3 =$$

$$3 =$$

58. Simplify.

$$3 \cdot 3 + 9 \cdot 9$$

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

- ☐ A.  $3 \cdot 3 + 9 \cdot 9 =$    
☐ B. The expression is undefined.

Answer: A.  $3 \cdot 3 + 9 \cdot 9 =$  90

PEMDAS

$$3 \cdot 3 + 9 \cdot 9 =$$

$$9 + 9 \cdot 9 =$$

$$9 + 81 =$$

$$90 =$$

$$\begin{array}{r} 81 \\ + 9 \\ \hline 90 \end{array}$$



59. Simplify.

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

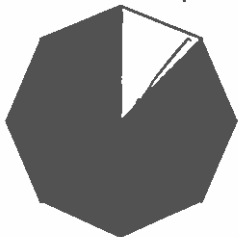
Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

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

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

$$\begin{aligned} (2+3) \cdot (7-4) &= \\ (5) \cdot (7-4) &= \\ (5) \cdot (3) &= \\ 5 \cdot 3 &= \\ 15 &= \end{aligned}$$

60. Write a fraction to represent the shaded part of the figure.



The fraction representing the shaded part is .

Answer:  $\frac{7}{8}$

$$\frac{7}{8}$$

61. Write a fraction to represent the shaded region of the figure.



The fraction that represents the shaded region of this figure is .

Answer:  $\frac{7}{9}$

$$\frac{7}{9}$$

62. Write a fraction to represent the shaded region of the figure.

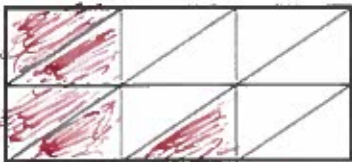


A fraction which represents the figure is .

Answer:  $\frac{3}{7}$

$$\frac{3}{7}$$

63. Type a fraction to represent the shaded part.



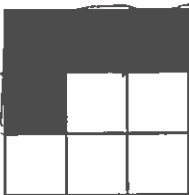
What is the fraction represented by the shaded part?

(Do not simplify.)

Answer:  $\frac{5}{12}$

$\frac{5}{12}$

64. Write a fraction to represent the shaded region of the figure. The fraction that represents the shaded region of this figure is .



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

$\frac{4}{9}$

65. Write a fraction to represent the shaded part of the syringe.

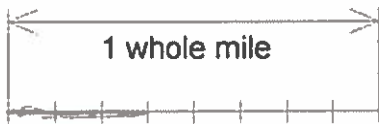


The fraction represented by the shaded parts is .

Answer:  $\frac{7}{8}$

$\frac{7}{8}$

66. Write a fraction to represent the shaded part of the distance.



The fraction that represents the shaded part is .

Answer:  $\frac{3}{8}$

$\frac{3}{8}$

67. Draw and shade a part of a diagram to represent the fraction.

$\frac{4}{7}$  of a diagram

Which shaded region below represents  $\frac{4}{7}$ ?



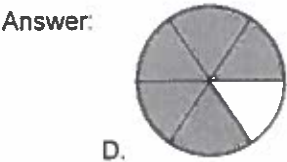
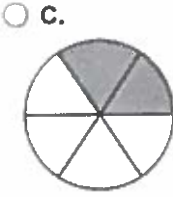
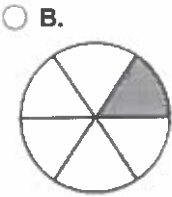
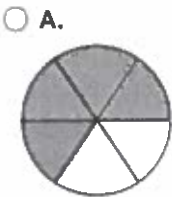
D.

$\frac{4}{7}$

68. Draw and shade a part of a figure to represent the fraction.

$\frac{5}{6}$  of a figure

Which shaded region below represents  $\frac{5}{6}$ ?



D.

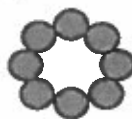
$\frac{5}{6}$

69. Each of the objects shown to the right is divided into equal sections and part of each object is shaded. The shaded part is a fraction of the whole object.

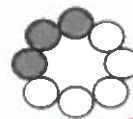
Which object represents the fraction  $\frac{4}{8}$ ?

Choose the correct answer below.

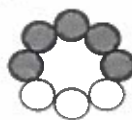
☐ A.



☐ B.



☐ C.



☒ D.



☐ E.

None of the above.

$\frac{4}{8}$

Answer:



70. Each of the figures shown to the right is divided into equal sections, and part of each figure is shaded. The shaded part is a fraction of the whole figure.

Which figure represents the fraction  $\frac{10}{10}$ ?

Choose the correct answer below.

☐ A.



☒ B.



☐ C.



☐ D.



☐ E. None of the above.

$\frac{10}{10}$

Answer:



71. In an American Sign Language (A.S.L) class of 29 students, 18 are hearing impaired. What fraction of the students are hearing impaired?

The fraction of the students that are hearing impaired is .

Answer:  $\frac{18}{29}$

$\frac{18}{29}$

72. Of 69 cars making up a freight train, 52 are boxcars.

A. How many of the cars are *not* boxcars? ←

B. What fraction of the cars are *not* boxcars? ←

A. The number of cars that are *not* boxcars is .

B. The fraction of the cars that are *not* boxcars is .

Answers 17

$$\frac{17}{69}$$

$$\begin{array}{r} 69 \\ -52 \\ \hline 17 \end{array}$$

NOT  
Boxcars

$$\frac{17}{69}$$

73. The Atlantic hurricane season of this year rewrote the record books. There were 22 tropical storms, 13 of which turned into hurricanes. What fraction of this season's Atlantic tropical storms escalated to hurricanes?

The fraction of tropical storms which escalated to hurricanes is .

Answer:  $\frac{13}{22}$

$$\frac{13}{22}$$

74. There are 31 days in the month of October. What fraction of the month does 13 days represent?

13 days represents  of the month of October.

Answer:  $\frac{13}{31}$

$$\frac{13}{31}$$

75. Represent the shaded part of the group of circles with

A. an improper fraction and

B. a mixed number.



A. The improper fraction which represents the shaded area of the figure group is .

B. The mixed number which represents the shaded area of the figure group is .

Answers  $\frac{9}{4}$   
 $2\frac{1}{4}$

$$\frac{9}{4}$$

$$\begin{array}{r} 2 \\ 4 \overline{)9} \\ \underline{8} \\ 1 \text{ rem} \end{array}$$

OR

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

76. Represent the shaded part of the group of triangles with  
 A. an improper fraction and  
 B. a mixed number.



A. The improper fraction that represents the shaded area of the figure group is .

B. The mixed number that represents the shaded area of the figure group is .

Answers  $\frac{9}{4}$

$2\frac{1}{4}$

OR

$2\frac{1}{4}$

$\frac{9}{4}$

$$\begin{array}{r} 2 \\ 4 \overline{) 9} \\ \underline{8} \\ 1 \text{ rem} \end{array}$$

77. Write the shaded area in the figure as a) an improper fraction and b) a mixed number.



a) The shaded area as an improper fraction is .

b) The shaded area as a mixed number is .

Answers  $\frac{11}{6}$

$1\frac{5}{6}$

OR

$1\frac{5}{6}$

$\frac{11}{6}$

$$\begin{array}{r} 1 \\ 6 \overline{) 11} \\ \underline{6} \\ 5 \text{ rem} \end{array}$$



78. Represent the shaded area in the figure group with

- A. an improper fraction and  
B. a mixed number.



A. The improper fraction is . (Type an improper fraction. Do not reduce.)

B. The mixed number is . (Type a mixed number. Do not reduce.)

Answers  $\frac{5}{3}$   
 $1\frac{2}{3}$

OR

$1\frac{2}{3}$

$$\begin{array}{r} 1 \\ 3 \overline{) 5} \\ \underline{-(3)} \\ 2 \text{ rem} \end{array}$$

79. Write the shaded area in the figure group as (a) a mixed number and (b) an improper fraction.



a. Write the shaded area as a mixed number.

(Type a mixed number. Do not simplify.)

b. Write the shaded area as an improper fraction.

(Type an improper fraction. Do not simplify.)

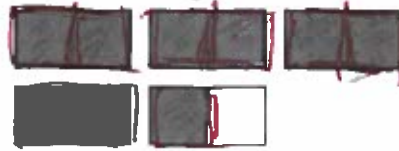
Answers  $1\frac{1}{4}$   
 $\frac{5}{4}$

$1\frac{1}{4}$

$$\begin{array}{r} 1 \\ 4 \overline{) 5} \\ \underline{-(4)} \\ 1 \text{ rem} \end{array}$$

$\frac{5}{4}$

80. Represent the shaded part of the group of figures with (a) an improper fraction and (b) a mixed number.



a. Write the shaded area as an improper fraction.

b. Write the shaded area as a mixed number.

Answers  $\frac{9}{2}$   
 $4\frac{1}{2}$

OR

$4\frac{1}{2}$

$\frac{9}{2}$   
 $2 \overline{) 9}$   
 $\underline{-(8)}$   
 $1 \text{ rem}$

81. What fraction correctly represents the shaded part of the figure below?



Choose the correct answer below.

- ☐ A.  $\frac{16}{7}$   
☐ B.  $\frac{9}{16}$   
☒ C.  $\frac{7}{16}$   
☐ D.  $\frac{7}{9}$

$\frac{7}{16}$

Answer: C.  $\frac{7}{16}$

Primes 2, 3, 5, 7, 11, 13, ...

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

8

The prime factorization of 8 is .

Answer:  $2^3$

$8 = 2 \cdot 2 \cdot 2$   
 $8 = 2^3$   
OR

$\begin{array}{r} 2 \overline{) 8} \\ \underline{4} \\ 2 \overline{) 4} \\ \underline{2} \\ 2 \overline{) 2} \\ \underline{1} \end{array}$

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

The prime factorization is .

Answer:  $5 \cdot 3$

$\begin{array}{r} 3 \overline{) 15} \\ \underline{5} \\ 5 \overline{) 5} \\ \underline{1} \end{array}$

Primes 2, 3, 5, 7, 11, 13, ...

$15 = 3 \cdot 5$   
 $15 = 5 \cdot 3$   
OR

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

40

The prime factorization of 40 is .

Answer:  $2^3 \cdot 5$

Primes 2, 3, 5, 7, 11, 13, ...

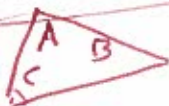
$\begin{array}{r} 2 \overline{)40} \\ 2 \overline{)20} \\ 2 \overline{)10} \\ 5 \overline{)5} \end{array}$

$40 = 2 \cdot 2 \cdot 2 \cdot 5$

$40 = 2^3 \cdot 5$  OR

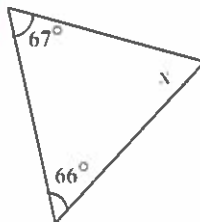
85.

Formula



$$A + B + C = 180^\circ$$

Find the measure of  $\angle x$  in the figure.



(Note: Figure is not drawn to scale.)

The measure of  $\angle x$  is .

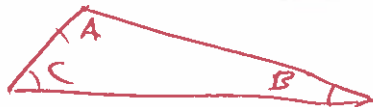
Answer: 47

$$\begin{array}{r} 67 \\ + 66 \\ \hline 133 \end{array}$$

$$\begin{array}{r} 180 \\ - 133 \\ \hline 47 \end{array}$$

86. Find the measure of  $\angle x$  in the figure.

Formula



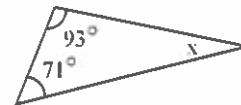
$$A + B + C = 180^\circ$$

The measure of  $\angle x$  is .

Answer: 16

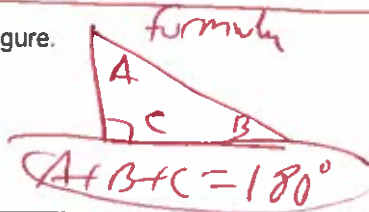
$$\begin{array}{r} 93 \\ + 71 \\ \hline 164 \end{array}$$

$$\begin{array}{r} 180 \\ - 164 \\ \hline 16 \end{array}$$



(Note: Figure is not drawn to scale.)

87. Find the measure of  $\angle x$  in the figure.



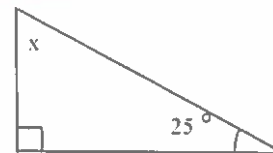
$$A + B + C = 180^\circ$$

The measure of  $\angle x$  is .

Answer: 65

$$\begin{array}{r} 90 \\ + 25 \\ \hline 115 \end{array}$$

$$\begin{array}{r} 180 \\ - 115 \\ \hline 65 \end{array}$$



88. Identify the solid shown to the right.

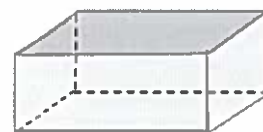


Choose the correct answer below.

- ☐ cube
- ☒ cylinder
- ☐ pyramid
- ☐ cone
- ☐ sphere
- ☐ rectangular solid

Answer: cylinder

89. Identify the solid shown to the right.



Choose the correct answer below.

- ☐ cube
- ☐ cone
- ☐ sphere
- ☐ cylinder
- ☒ rectangular solid
- ☐ pyramid

Answer: rectangular solid

90. Identify the solid shown to the right.



Choose the correct answer below.

- ☐ sphere
- ☒ cone
- ☐ cylinder
- ☐ pyramid
- ☐ rectangular solid
- ☐ cube

Answer: cone

91. Identify the basic shape of the item shown to the right.

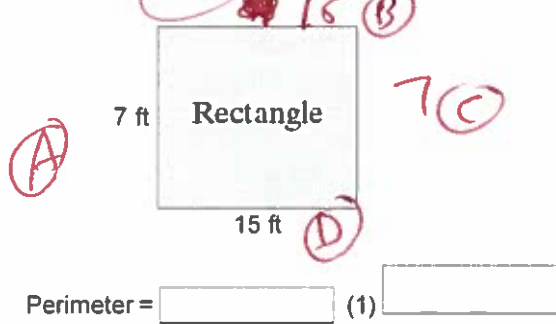


The basic shape of the item shown is a (1)

- (1) ☐ sphere.
- ☐ rectangular solid.
- ☐ cube.
- ☒ pyramid.

Answer: (1) pyramid.

92. Find the perimeter of the following figure.



- (1) ☐ ft  
☐ sq. ft

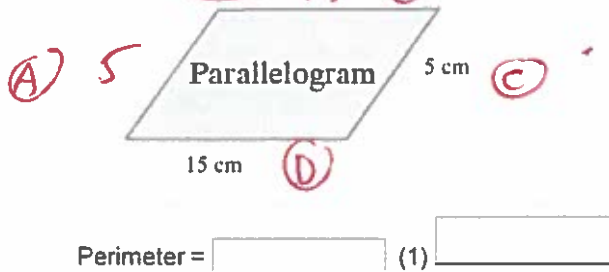
Answers 44

(1) ft

$$\begin{aligned} P &= A + B + C + D \\ P &= 7 + 15 + 7 + 15 \\ P &= 22 + 7 + 15 \\ P &= 29 + 15 \\ P &= 44 \end{aligned}$$

$$\begin{array}{r} 7 \\ + 15 \\ \hline 22 \\ + 7 \\ \hline 29 \\ + 15 \\ \hline 44 \end{array}$$

93. Find the perimeter of the following figure.



- (1) ☐ cm  
☐ sq. cm

Answers 40

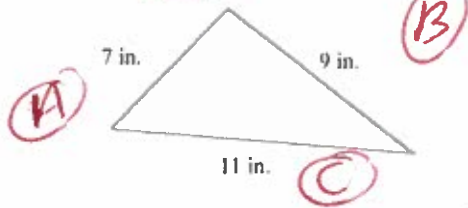
(1) cm

$$\begin{aligned} P &= A + B + C + D \\ P &= 5 + 15 + 5 + 15 \\ P &= 20 + 5 + 15 \\ P &= 25 + 15 \\ P &= 40 \end{aligned}$$

$$\begin{array}{r} 5 \\ + 15 \\ \hline 20 \\ + 5 \\ \hline 25 \\ + 15 \\ \hline 40 \end{array}$$



94. Find the perimeter of the following figure.



$$P = A + B + C$$

$$P = 7 + 9 + 11$$

$$P = 16 + 11$$

$$P = 27$$

$$\begin{array}{r} 7 \\ + 9 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 16 \\ + 11 \\ \hline 27 \end{array}$$

The perimeter is  (1)

- (1) ☐ in.  
☐ sq. in.

Answers 27

(1) in.

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

$$P = A + B + C + D + E$$

$$P = 10 + 13 + 11 + 11 + 18$$

$$P = 23 + 11 + 11 + 18$$

$$P = 34 + 11 + 18$$

$$P = 45 + 18$$

$$\begin{array}{r} 10 \\ + 13 \\ \hline 23 \\ + 11 \\ \hline 34 \\ + 11 \\ \hline 45 \\ + 18 \\ \hline 63 \end{array}$$

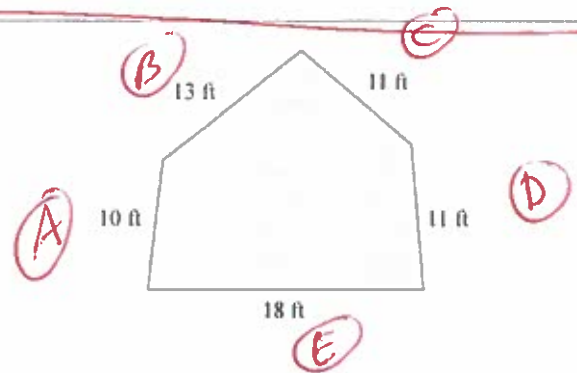
Perimeter =  (1)

- (1) ☐ ft.  
☐ sq. ft.

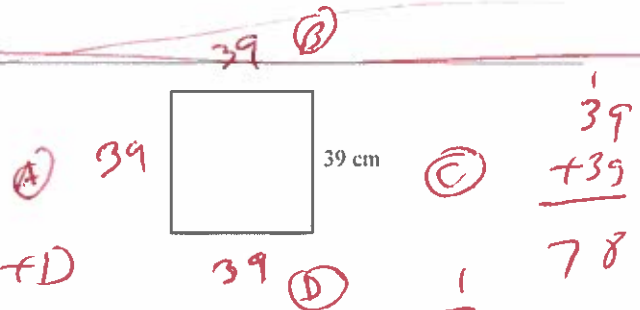
$$P = 63$$

Answers 63

(1) ft.



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



The perimeter is  (1)

- (1) ☐ centimeters.  
☐ square centimeters.

Answers 156

(1) centimeters.

$$P = A + B + C + D$$

$$P = 39 + 39 + 39 + 39$$

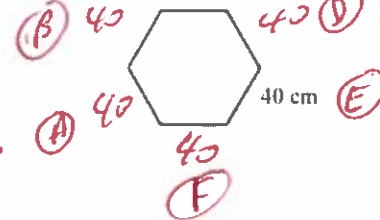
$$P = 78 + 39 + 39$$

$$P = 117 + 39$$

$$P = 156$$

$$\begin{array}{r} 39 \\ + 39 \\ \hline 78 \\ + 39 \\ \hline 117 \\ + 39 \\ \hline 156 \end{array}$$

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



The perimeter is

(1)

- (1) ☐ square centimeters.  
☐ centimeters.

Answers 240

(1) centimeters.

$$P = A + B + C + D + E + F$$

$$P = 40 + 40 + 40 + 40 + 40 + 40$$

$$P = 80 + 40 + 40 + 40 + 40$$

$$P = 120 + 40 + 40 + 40$$

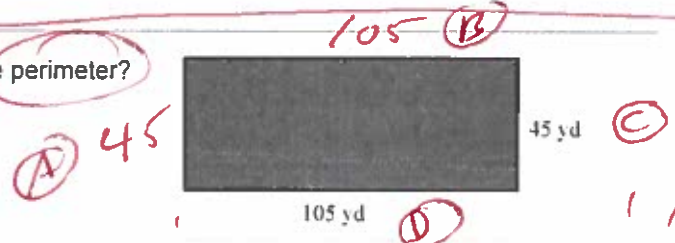
$$P = 160 + 40 + 40$$

$$P = 200 + 40$$

$$P = 240$$

$$\begin{array}{r} 40 \\ + 40 \\ \hline 80 \\ + 40 \\ \hline 120 \\ + 40 \\ \hline 160 \\ + 40 \\ \hline 200 \\ + 40 \\ \hline 240 \end{array}$$

98. If a playing field is 45 yards wide and 105 yards long, what is the perimeter?



Perimeter =

(1)

- (1) ☐ yd  
☐ sq. yd

Answers 300

(1) yd

$$P = A + B + C + D$$

$$P = 45 + 105 + 45 + 105$$

$$P = 150 + 45 + 105$$

$$P = 195 + 105$$

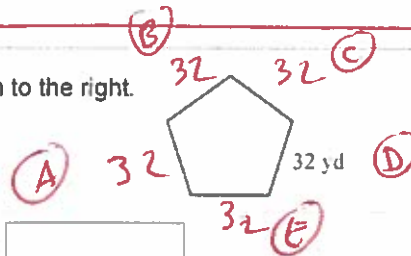
$$P = 300$$

$$\begin{array}{r} 45 \\ + 105 \\ \hline 150 \end{array}$$

$$\begin{array}{r} 150 \\ + 45 \\ \hline 195 \end{array}$$

$$\begin{array}{r} 195 \\ + 105 \\ \hline 300 \end{array}$$

99. Find the distance around the regular pentagon shown to the right.



The distance around the figure is

(1)

- (1) ☐ sq yd.  
☐ yd.

Answers 160

(1) yd.

$$P = A + B + C + D + E$$

$$P = 32 + 32 + 32 + 32 + 32$$

$$P = 64 + 32 + 32 + 32$$

$$P = 96 + 32 + 32$$

$$P = 128 + 32$$

$$P = 160$$

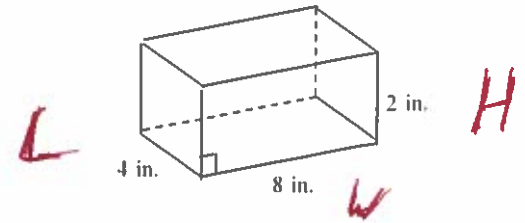
$$\begin{array}{r} 32 \\ + 32 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 64 \\ + 32 \\ \hline 96 \end{array}$$

$$\begin{array}{r} 96 \\ + 32 \\ \hline 128 \end{array}$$

$$\begin{array}{r} 128 \\ + 32 \\ \hline 160 \end{array}$$

100. Find the volume of the solid.

The volume of the solid is  (1) 

(Simplify your answer.)

- (1) ☐ square inches.  
☐ inches.  
☐ cubic inches.

Answers 64

(1) cubic inches.

$$V = L \cdot W \cdot H$$

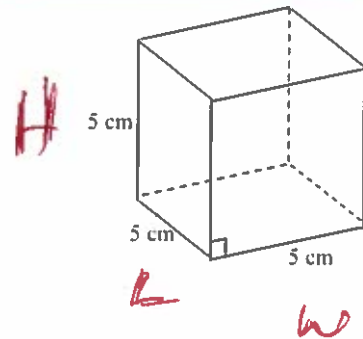
$$V = 4 \cdot 8 \cdot 2$$

$$V = 32 \cdot 2$$

$$V = 64$$

$$\begin{array}{r} 8 \\ \times 4 \\ \hline 32 \\ \times 2 \\ \hline 64 \end{array}$$

101. Find the volume of the solid.

The volume of the solid is  (1) 

(Simplify your answer.)

- (1) ☐ square centimeters.  
☐ centimeters.  
☐ cubic centimeters.

Answers 125

(1) cubic centimeters.

$$V = L \cdot W \cdot H$$

$$V = 5 \cdot 5 \cdot 5$$

$$V = 25 \cdot 5$$

$$V = 125$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline 25 \end{array}$$

$$25$$

$$\begin{array}{r} 25 \\ \times 5 \\ \hline 125 \end{array}$$