

05-03-19

05-05-19

Student: _____

Instructor: Alfredo Alvarez

Assignment: _____

Date: _____

Course: Martin-Gay Basic Math

MATH2357FIESTAPMDPREALEKS150

1. Add.

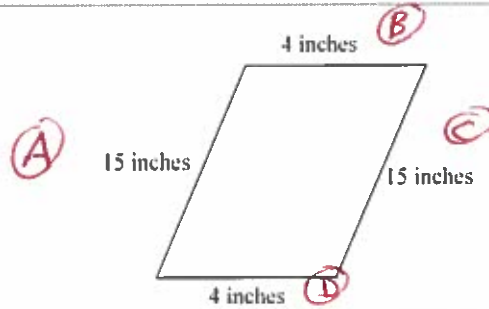
$$\begin{array}{r} 41 \\ + 27 \\ \hline \end{array}$$

$$\begin{array}{r} 41 \\ + 27 \\ \hline 68 \end{array}$$

The sum is

Answer: 68

2. Find the perimeter of the figure.



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

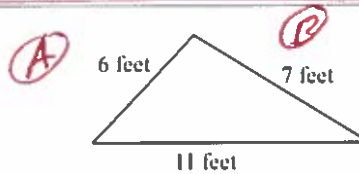
$$\begin{aligned} P &= A + B + C + D \\ P &= 15 + 4 + 15 + 4 \\ P &= 19 + 15 + 4 \\ P &= 34 + 4 \\ P &= 38 \end{aligned}$$

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

Answers 38

(1) inches.

3. Find the perimeter of the figure.



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

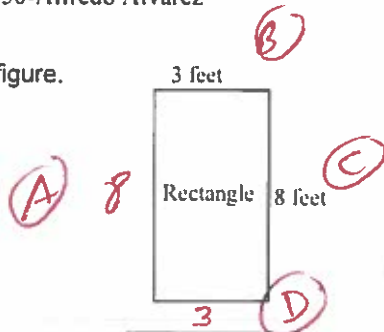
$$\begin{aligned} P &= A + B + C \\ P &= 6 + 7 + 11 \\ P &= 13 + 11 \\ P &= 24 \end{aligned}$$

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

Answers 24

(1) feet.

4. Find the perimeter of the figure.



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

$$P = 8 + 3 + 8 + 3$$

$$P = 11 + 8 + 3$$

$$P = 19 + 3$$

$$P = 22$$

The perimeter is (1)

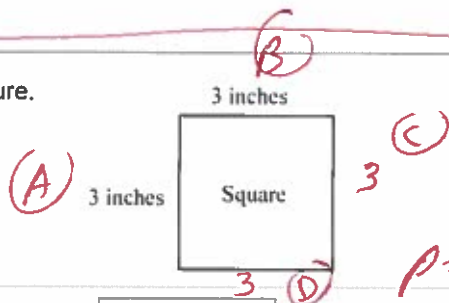
(Type a whole number.)

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

Answers 22

(1) feet.

5. Find the perimeter of the figure.



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

$$P = 3 + 3 + 3 + 3$$

$$P = 6 + 3 + 3$$

$$P = 9 + 3$$

$$P = 12$$

The perimeter is (1)

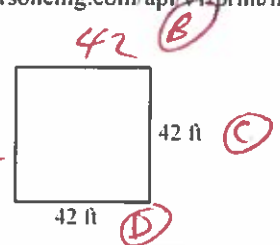
(Type a whole number.)

- (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.



The perimeter is (1)

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

$$\begin{aligned}
 P &= A + B + C + D \\
 P &= 42 + 42 + 42 + 42 \\
 P &= 84 + 42 + 42 \\
 P &= 126 + 42
 \end{aligned}$$

$$P = 168$$

Answers 168

(1) feet.

7. Subtract.

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

The difference is .

$$\begin{array}{r}
 77 \\
 - 41 \\
 \hline
 36
 \end{array}$$

Answer: 36

8. Subtract.

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

The difference is .

$$\begin{array}{r}
 8 \overset{13}{} \\
 93 \\
 - 66 \\
 \hline
 27
 \end{array}$$

Answer: 27

9. Subtract. Check by adding.

$$\begin{array}{r}
 80 \\
 - 62 \\
 \hline
 \end{array}$$

The difference is .

$$\begin{array}{r}
 7 \overset{18}{} \\
 80 \\
 - 62 \\
 \hline
 18
 \end{array}$$

Answer: 18

10. Round 475 to the nearest ten.

475 rounded to the nearest ten is

Answer: 480

475 = since 5 ≥ 5
round up

480 =

11. Round 6,564 to the nearest hundred.

The number 6,564 rounded to the nearest hundred is

Answer: 6,600

6564 = since 6 ≥ 5
round up

6600 =

12. Round 696 to the nearest ten.

696 rounded to the nearest ten is

Answer: 700

696 = since 6 ≥ 5
round up

700 =

13. Round 23,188 to the nearest thousand.

23,188 rounded to the nearest thousand is

Answer: 23,000

23188 = since 1 < 5
do not round up

23000 =

14. Use the distributive property to rewrite each expression.

$7(2+4)$

$7(2+4) = \text{$

(Type an expression. Do not simplify.)

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

$7(2+4) =$

$7 \cdot 2 + 7 \cdot 4 =$

15. Multiply.

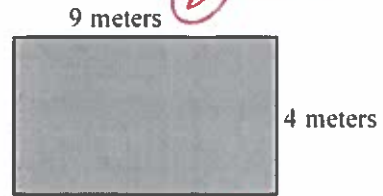
$\begin{array}{r} 73 \\ \times 6 \\ \hline \end{array}$

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

$\begin{array}{r} 73 \\ \times 6 \\ \hline 438 \end{array}$

Answer: 438

16. 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) meters. (2) meters.
 square meters. square meters.
 cubic meters. cubic meters.

Answers 36

(1) square meters.

26

(2) meters.

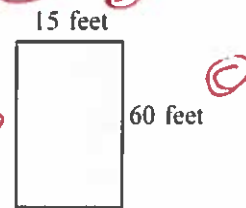
$A = LW$
 $A = (4)(9)$

$A = 36$

$P = A + B + C + D$
 $P = 4 + 9 + 4 + 9$
 $P = 13 + 4 + 9$
 $P = 17 + 9$

$P = 26$

17. 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 900

(1) square feet.

150

(2) feet.

$A = LW$
 $A = (60)(15)$

$A = 900$

$P = A + B + C + D$
 $P = 60 + 15 + 60 + 15$
 $P = 75 + 60 + 15$
 $P = 135 + 15$

$P = 150$

$$\begin{array}{r} 3 \\ 15 \\ \times 60 \\ \hline 90 \\ 900 \end{array}$$

18. Find the following quotient.

$55 \div 5$

$\frac{55}{5}$

$$\begin{array}{r} 11 \\ 5 \overline{)55} \\ \underline{-(5)} \\ 5 \\ \underline{-(5)} \\ 0 \end{array}$$

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. $55 \div 5 =$ (Simplify your answer.)

19. Find the following quotient.

$0 \div 6$

$\frac{0}{6}$

$$\begin{array}{r} 0 \\ 6 \overline{)0} \\ \underline{-(0)} \\ 0 \end{array}$$

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. $0 \div 6 =$ (Simplify your answer.)

20. Divide the following and then check by multiplying.

$3 \overline{)39}$

$$\begin{array}{r} 13 \\ 3 \overline{)39} \\ \underline{-(3)} \\ 9 \\ \underline{-(9)} \\ 0 \end{array}$$

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 .

21. Divide the following and then check by multiplying.

$8 \overline{)356}$

$$\begin{array}{r} 44 \\ 8 \overline{)356} \\ \underline{-(32)} \\ 36 \\ \underline{-(32)} \\ 4 \end{array}$$

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.

Handwritten notes for choice C: $44 \div 4$ OR $44 \frac{4}{8}$ OR $44 \frac{1}{2}$ OR 4 rem

Answer: B. The quotient has a remainder not equal to 0. The quotient is R .

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

20, 24, 24, 27, 15, 16

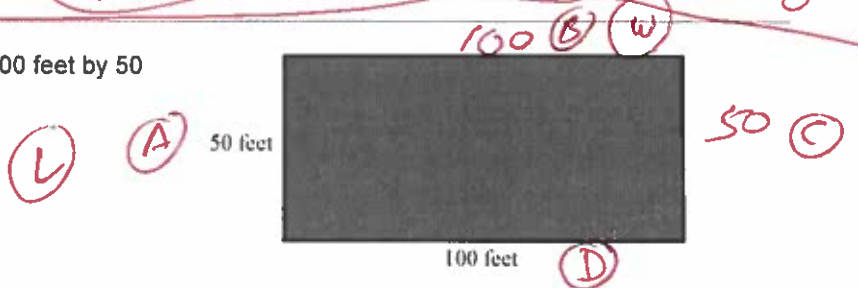
The average value is

Answer: 21

$$\frac{15 + 16 + 20 + 24 + 24 + 27}{6} = \frac{126}{6} = 21$$

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?



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.

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

$$P = 50 + 100 + 50 + 100$$

$$P = 150 + 50 + 100$$

$$P = 200 + 100$$

$$P = 300$$

$$A = LW$$

$$A = (50)(100)$$

$$A = 5000$$

$$\begin{array}{r} 100 \\ \times 50 \\ \hline 000 \\ 5000 \\ \hline 5000 \end{array}$$

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

There are hours in 7 days.

Answer: 168

$$\begin{array}{r} 24 \\ \times 7 \\ \hline 168 \end{array}$$

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

$$\begin{array}{r} 17 \\ 40 \overline{) 680} \\ \underline{-(40)} \\ 280 \\ \underline{-(280)} \\ 0 \end{array}$$

0 17 m

26. Find the value of the expression.

4^2

$4^2 =$

Answer: 16

$4^2 =$

$4 \cdot 4 =$

$16 =$

27. Find the square root.

$\sqrt{1}$

Answer: 1

$\sqrt{1} =$

$1 =$

$\sqrt{1} =$

$1^2 =$

$1 \cdot 1 =$

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. $42 + 5 \cdot 6 =$

B. The expression is undefined.

Answer: A. $42 + 5 \cdot 6 =$

PEMDAS

$42 + 5 \cdot 6 =$

$42 + 30 =$

$72 =$

$$\begin{array}{r} 42 \\ + 30 \\ \hline 72 \end{array}$$

29. Simplify.

$8 + 2 \cdot 4 + 8$

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

A. $8 + 2 \cdot 4 + 8 =$

B. The expression is undefined.

Answer: A. $8 + 2 \cdot 4 + 8 =$

PEMDAS

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

$4 \cdot 4 + 8 =$

$16 + 8 =$

$24 =$

$$\begin{array}{r} 16 \\ + 8 \\ \hline 24 \end{array}$$

30. Simplify.

$27 \div 9 - 1$

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

A. $27 \div 9 - 1 =$

B. The expression is undefined.

Answer: A. $27 \div 9 - 1 =$

PEMDAS

$27 \div 9 - 1 =$

$3 - 1 =$

$2 =$

31. Simplify.

$6 \cdot 9 + 4 \cdot 4$

PEMDAS

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.

$6 \cdot 9 + 4 \cdot 4 =$
 $54 + 4 \cdot 4 =$
 $54 + 16 =$

$$\begin{array}{r} 1 \\ 54 \\ +16 \\ \hline 70 \end{array}$$

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

70 =

32. Simplify.

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

PEMDAS

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.

$(4 + 5) \cdot (9 - 3) =$
 $(9) \cdot (6) =$
 $9 \cdot 6 =$

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

54 =

33. Simplify.

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

PEMDAS

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

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

- A. $\frac{4(7 - 4) + 2}{2^2 - 2} =$ _____
- B. The expression is undefined.

$\frac{4(3) + 2}{2 \cdot 2 - 2}$
 $\frac{12 + 2}{4 - 2}$

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

$\frac{14}{2} =$
7 =

34. Simplify.

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

PEMDAS

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.

$3^4 - [39 - (7)] =$
 $3^4 - [39 - 7] =$
 $3^4 - [32] =$
 $3 \cdot 3 \cdot 3 \cdot 3 - [32] =$
 $81 - 32 =$

$$\begin{array}{r} 7 \\ 81 \\ -32 \\ \hline 49 \end{array}$$

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. $42 - 81 \div 3^3$

Handwritten work for problem 35:

$16^2 = 16 \cdot 16 = 256 =$
 $\sqrt{16} = 4 =$
 $16^1 = 16 =$

$42 - 81 \div 3^3 = 42 - 81 \div 3 \cdot 3 \cdot 3 = 42 - 81 \div 27 = 42 - 3 = 39 =$

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

Handwritten work for problem 36:

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

$5 \overline{)25}$
 $5 \overline{)5}$
 1

$25 = 5 \cdot 5$
 OR $25 = 5^2$

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

The prime factorization is .

Answer: $5 \cdot 3$

Handwritten work for problem 37:

Prime: 2, 3, 5, 7, 11, 13, ...

$3 \overline{)15}$
 $5 \overline{)5}$
 1

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

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

18

The prime factorization of 18 is .

Answer: $2 \cdot 3^2$

Handwritten work for problem 38:

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

$2 \overline{)18}$
 $3 \overline{)9}$
 $3 \overline{)3}$
 1

$18 = 2 \cdot 3 \cdot 3$
 OR
 $18 = 2 \cdot 3^2$

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 $\frac{6}{25}$
38
 $\frac{6}{19}$

$\frac{12}{50} =$
 $2 \cdot 2 \cdot 3 =$
 $2 \cdot 5 \cdot 5$
 $\frac{2 \cdot 3}{5 \cdot 5} =$

$\frac{6}{25}$

Primes 2, 3, 5, 7, 11, 13, 17, 19, ...

$\frac{12}{26} =$
 $\frac{3 \cdot 3}{1}$

$\frac{50}{525} =$
 $\frac{5 \cdot 5}{5 \cdot 5}$

$\frac{50}{12} =$
 38

$\frac{12}{38} =$
 $\frac{2 \cdot 6}{2 \cdot 19} =$
 $\frac{6}{19}$

$\frac{2 \cdot 38}{19 \cdot 19} =$
 $\frac{2 \cdot 50}{5 \cdot 5} =$
 $\frac{5 \cdot 5}{5 \cdot 5}$

40. Write the percent as a decimal.

8%

8% =

Answer: 0.08

8% =

0.08 =

0.08 =

41. Write the percent as a decimal.

75.1%

75.1% =

Answer: 0.751

75.1% =

0.751 =

0.751 =

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

15%

15% =

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

15%

$\frac{15}{100} =$

$\frac{3 \cdot 5}{2 \cdot 2 \cdot 5 \cdot 5} =$

$\frac{3}{2 \cdot 2 \cdot 5} =$

$\frac{3}{20}$

Primes 2, 3, 5, 7, 11, 13, 17, ...

$\frac{3 \cdot 5}{5 \cdot 5} =$
 $\frac{1}{1}$

$\frac{2 \cdot 100}{2 \cdot 50} =$
 $\frac{5 \cdot 25}{5 \cdot 5} =$
 $\frac{1}{1}$

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

14%

14% =

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

Primo 2, 3, 5, 7, 11, 13, 17

$$\frac{14}{100} = \frac{2 \cdot 7}{2 \cdot 2 \cdot 5 \cdot 5} = \frac{7}{2 \cdot 5 \cdot 5} = \frac{7}{50}$$

44. Write the following fraction as a percent.

$\frac{1}{4}$

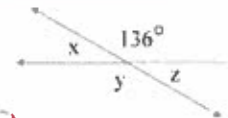
$\frac{1}{4} =$ % (Simplify your answer. Type a whole number.)

Answer: 25

$\frac{1}{4} \rightarrow 25\%$

$4 \overline{) 1.00} = 0.25$

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

$x + 136 = 180$
 $x + 136 - 136 = 180 - 136$

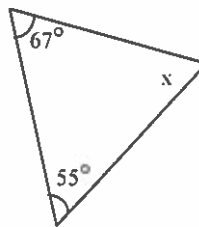
$x = 44$

$y = 136$

$z = x \rightarrow z = 44$

46.

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



(Note: Figure is not drawn to scale.)

The measure of $\angle x$ is °.

Answer: 58

$67 + 55 + x = 180$
 $122 + x = 180$
 $122 + x - 122 = 180 - 122$
 $x = 58$

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

$$x + 93 + 69 = 180$$

$$x + 162 = 180$$



(Note: Figure is not drawn to scale.)

The measure of $\angle x$ is ° $x + 162 - 162 = 180 - 162$

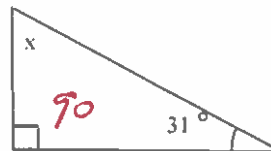
Answer: 18

$$x = 18$$

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

$$x + 90 + 31 = 180$$

$$x + 121 = 180$$

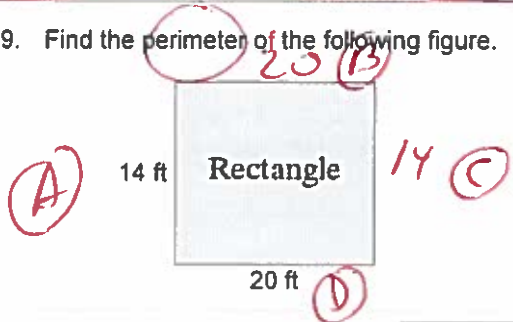


The measure of $\angle x$ is ° $x + 121 - 121 = 180 - 121$

Answer: 59

$$x = 59$$

49. Find the perimeter of the following figure.



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

$$P = 14 + 20 + 14 + 20$$

$$P = 34 + 14 + 20$$

$$P = 48 + 20$$

Perimeter = (1)

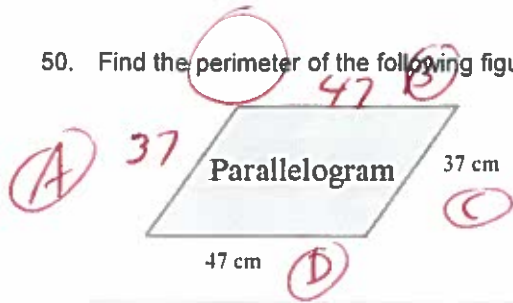
$$P = 68$$

- (1) ft
- sq. ft

Answers 68

(1) ft

50. Find the perimeter of the following figure.



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

$$P = 37 + 47 + 37 + 47$$

$$P = 84 + 37 + 47$$

$$P = 121 + 47$$

$$P = 168$$

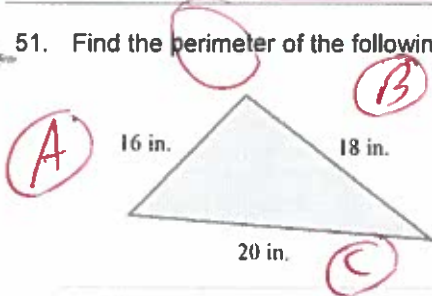
Perimeter = (1)

- (1) sq. cm
 cm

Answers 168

(1) cm

51. Find the perimeter of the following figure.



$$P = A + B + C$$

$$P = 16 + 18 + 20$$

$$P = 34 + 20$$

$$P = 54$$

The perimeter is (1)

- (1) in.
 sq. in.

Answers 54

(1) in.

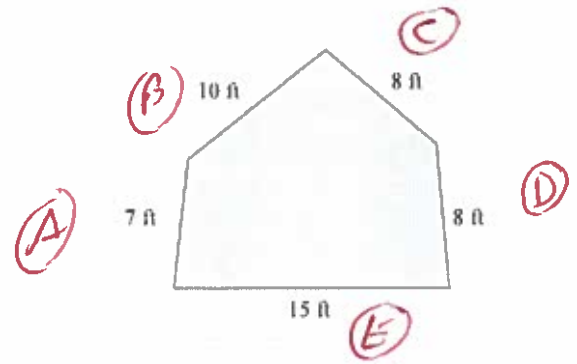
52. Find the perimeter of the figure shown to the right.

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

$$P = 7 + 10 + 8 + 8 + 15$$

$$P = 17 + 8 + 8 + 15$$

$$P = 25 + 8 + 15$$



Perimeter = (1)

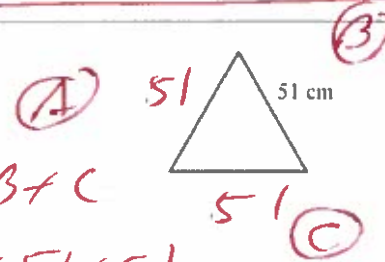
- (1) ft.
- sq. ft.

$$P = 33 + 15$$

Answers 48
(1) ft.

$$P = 48$$

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



The perimeter is (1)

- (1) square centimeters.
- centimeters.

$$P = A + B + C$$

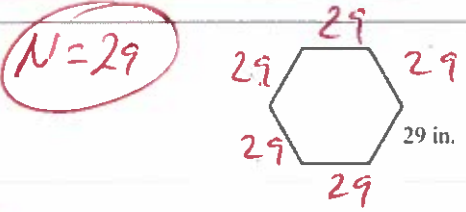
$$P = 51 + 51 + 51$$

$$P = 102 + 51$$

Answers 153
(1) centimeters.

$$P = 153$$

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



The perimeter is (1)

- (1) inches.
- square inches.

$$P = 6N$$

$$P = 6(29)$$

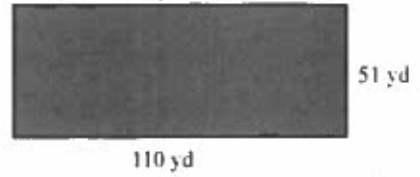
Answers 174
(1) inches.

$$P = 174$$

$$\begin{array}{r} 29 \\ \times 6 \\ \hline 174 \end{array}$$

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

$W = 51$



Perimeter = (1)

- (1) sq. yd
- yd

Answers 322
(1) yd

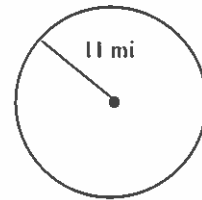
$110 = L$
 $P = 2L + 2W$
 $P = 2(110) + 2(51)$
 $P = 220 + 102$
 $P = 322$

220
 $+ 102$

 322

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

$r = 11$



$C = 2\pi r$
 $C = 2\pi(11)$
 $C = 22\pi$

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.
- square miles.
- (2) miles.
- square miles.

Answers 22π
(1) miles.
69.08
(2) miles.

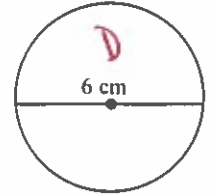
$C = 2\pi r$
 $C = 2(3.14)r$
 $C = 2(3.14)(11)$
 $C = 6.28(11)$
 $C = 69.08$

6.28
 $\times 11$

 628
 628

 69.08

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



$D = 6$

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

$C = \pi D$
 $C = \pi (6)$

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

$C = 6\pi$

- (1) square centimeters. (2) square centimeters.
 centimeters. centimeters.

$C = \pi D$
 $C = 3.14 D$
 $C = 3.14 (6)$

Answers 6 π

(1) centimeters.

18.84

(2) centimeters.

$$\begin{array}{r} 3.14 \\ \times 6 \\ \hline 18.84 \end{array}$$

$C = 18.84$

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



$N = 45$

The distance around the figure is (1)

- (1) m.
 sq m.

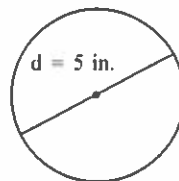
$P = 4N$
 $P = 4(45)$
 $P = 180$

Answers 180

(1) m.

$$\begin{array}{r} 45 \\ \times 4 \\ \hline 180 \end{array}$$

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.



$d = 5$
 $r = \frac{1}{2}d = \frac{1}{2}(5) = \frac{5}{2}$
 $r = 2.5$

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.)

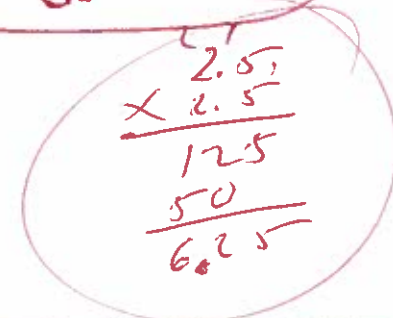
- (1) cu in. (2) sq in.
 sq in. cu in.
 in. in.

Answers 6.25π

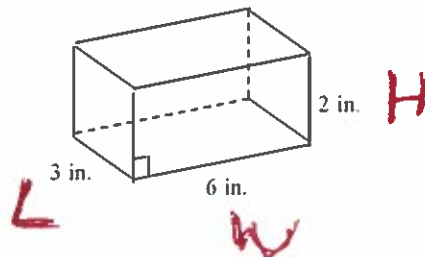
- (1) sq in.
 19.625
 (2) sq in.

$A = 3.14r^2$
 $A = 3.14(2.5)^2$
 $A = 3.14(2.5)(2.5)$
 $A = 3.14(6.25)$
 $A = 19.625$

$A = \pi r^2$
 $A = \pi (2.5)^2$
 $A = \pi (2.5)(2.5)$
 $A = \pi (6.25)$
 $A = 6.25\pi$



60. Find the volume of the solid.



$V = LWH$

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

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

Answers 36

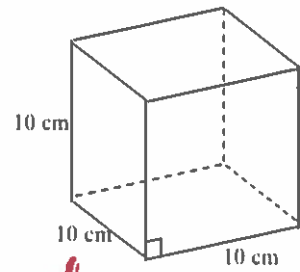
- (1) cubic inches.

$V = (3)(6)(2)$
 $V = 18(2)$
 $V = 36$

61. Find the volume of the solid.

$$V = LWH$$

H



L

W

The volume of the solid is (1)

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

$$V = (10)(10)(10)$$

$$V = 100(10)$$

$$V = 1000$$

Answers 1000

(1) cubic centimeters.

62. Simplify.

$$|-72|$$

$$|-72| = \text{input box}$$

Answer: 72

$$|-72| =$$

$$(72) =$$

$$72 =$$

63. Simplify.

$$-|-37|$$

$$-|-37| = \text{input box}$$

Answer: -37

$$-|-37| =$$

$$-(37) =$$

$$-37 =$$

64. Simplify.

$$-(-98)$$

$$-(-98) = \text{input box}$$

Answer: 98

$$-(-98) =$$

$$98 =$$

65. Subtract.

$$-6 - (-6)$$

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

Answer: 0

$$-6 - (-6) =$$

$$-6 + 6 =$$

$$0 =$$

66. Perform the subtraction.

$$15 - (-15)$$

$$15 - (-15) = \boxed{}$$

Answer: 30

$$15 - (-15) =$$

$$15 + 15 =$$

$$30 =$$

67. Subtract.

$$-3 - (-5)$$

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

Answer: 2

$$-3 - (-5) =$$

$$-3 + 5 =$$

$$2 =$$

68. Perform the subtraction.

$$-8 - 17$$

$$-8 - 17 = \boxed{}$$

Answer: -25

$$-8 - 17 =$$

$$-25 =$$

69. Subtract.

$$5 - 17$$

$$5 - 17 = \boxed{}$$

Answer: -12

$$5 - 17 =$$

$$-12 =$$

70. Subtract.

$$2.4 - 3.7$$

$$2.4 - 3.7 = \boxed{} \text{ (Type an integer or a decimal.)}$$

Answer: -1.3

$$2.4 - 3.7 =$$

$$-1.3 =$$

$$\begin{array}{r} 3.7 \\ -2.4 \\ \hline 1.3 \end{array}$$

71. Subtract.

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

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

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

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

$$-\frac{5}{11} + \frac{6}{11} =$$

$$\frac{-5+6}{11} =$$

$$\frac{1}{11}$$

72. Subtract.

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

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

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

$LCD = 12$

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

$$\frac{1(2)}{6(2)} - \frac{5}{12} =$$

$$\frac{2}{12} - \frac{5}{12} =$$

$$\frac{2-5}{12} =$$

$$\frac{-3}{12} =$$

$$\frac{-1(3)}{4(3)} =$$

$$-\frac{1}{4} =$$

73. Add.

$$-13 + (-26)$$

The sum is $\boxed{}$.

Answer: -39

$$-13 + (-26) =$$

$$-13 - 26 =$$

$$-39 =$$

74. Subtract.

$$-12.5 - 2.3$$

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

Answer: -14.8

$$-12.5 - 2.3 =$$

$$\begin{array}{r} 12.5 \\ + 2.3 \\ \hline 14.8 \end{array}$$

$$-14.8 =$$

75. Simplify.

$$9 - 3 - 5$$

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

Answer: 1

$$9 - 3 - 5 =$$

$$6 - 5 =$$

$$1 =$$

76. Simplify.

PEMDAS

$-2 - 24 - (-19)$

$-2 - 24 - (-19) = \text{[]}$

Answer: -7

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

$-2 - 24 + 19 =$

$-26 + 19 =$

$-7 =$

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

$|-20| - |-30|$

PEMDAS

$|-20| - |-30| = \text{[]}$

Answer: -10

$|-20| - |-30| =$

$(20) - (30) =$

$20 - 30 =$

$-10 =$

78. Multiply.

$-8(-9)$

$-8(-9) = \text{[]}$

Answer: 72

$-8(-9) =$

$72 =$

79. Multiply.

$-6(8)$

$-6(8) = \text{[]}$

Answer: -48

$-6(8) =$

$-48 =$

80. Multiply.

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

$-\frac{1}{8} \left(-\frac{3}{7}\right) = \text{[]}$ (Type a simplified fraction.)

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

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

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

$\frac{3}{56} =$

81. Multiply.

PEMDAS

$3(-5)(6)$

$3(-5)(6) = \text{[]}$ (Simplify your answer.)

Answer: -90

$3(-5)(6) =$

$-15(6) =$

$-90 =$

82. Multiply.

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

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

Answer: -21

PEMDAS

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

$3(-7) =$

$-21 =$

83. Evaluate.

$(-2)^2$

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

Answer: 4

$(-2)^2 =$

$(-2)(-2) =$

$4 =$

84. Evaluate.

-13^2

$-13^2 = \boxed{}$

Answer: -169

$-13^2 =$

$-(13)(13) =$

$-(169) =$

$-169 =$

85. Find the quotient.

$\frac{-90}{9}$

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

A. $\frac{-90}{9} = \underline{\hspace{2cm}}$

B. The answer is undefined.

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

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

$-10 =$

$$\begin{array}{r} 10 \\ 9 \overline{) 90} \\ \underline{-(9)} \\ 0 \\ \underline{-(0)} \\ 0 \end{array}$$

86. Find the quotient.

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

$$\frac{-120}{-12} = 10 =$$

$$\begin{array}{r} 10 \\ 12 \overline{)120} \\ \underline{-(12)} \\ 0 \\ \underline{-(0)} \\ 0 \end{array}$$

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

- A. $\frac{-120}{-12} =$ _____
- B. The answer is undefined.

Answer: A. $\frac{-120}{-12} =$

87. Divide.

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

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

$$\begin{array}{r} 0 \\ 15 \overline{)0} \\ \underline{-(0)} \\ 0 \end{array}$$

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

- A. $\frac{0}{15} =$ _____ (Type a whole number.)
- B. The answer is undefined.

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

88. Find the following quotient.

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

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

$$\begin{array}{r} 15 \\ 5 \overline{)75} \\ \underline{-(5)} \\ 25 \\ \underline{-(25)} \\ 0 \end{array}$$

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

- A. $\frac{75}{-5} =$ _____
- B. The answer is undefined.

$$-15 =$$

Answer: A. $\frac{75}{-5} =$

89. Divide.

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

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

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

Handwritten work for problem 89:

$$-\frac{5}{11} \div \left(-\frac{1}{5}\right) = \frac{-5}{11} \cdot \frac{5}{-1} = \frac{(-5)(5)}{(11)(-1)} = \frac{-25}{-11} = \frac{25}{11}$$

The final answer $\frac{25}{11}$ is circled in red.

90. Divide.

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

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

- A. $\frac{180}{-30} = \underline{\hspace{2cm}}$
- B. The answer is undefined.

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

Handwritten work for problem 90:

$$\frac{180}{-30} = -6$$

The result -6 is circled in red.

Long division work:

$$\begin{array}{r} 6 \\ 30 \overline{) 180} \\ \underline{-(180)} \\ 0 \end{array}$$

91. Find the quotient.

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

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

- A. $\frac{-90}{-9} = \underline{\hspace{2cm}}$
- B. The answer is undefined.

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

Handwritten work for problem 91:

$$\frac{-90}{-9} = 10$$

The result 10 is circled in red.

Long division work:

$$\begin{array}{r} 10 \\ 9 \overline{) 90} \\ \underline{-(90)} \\ 0 \end{array}$$

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

$$\frac{-400}{0.8} = 0.8 \overline{) 4000.}$$

$\begin{array}{r} 500. \\ 40 \\ \hline 00 \\ 00 \\ \hline 0 \end{array}$

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

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

$$-\frac{8}{63} \div \frac{1}{7} = -\frac{8}{63} \cdot \frac{7}{1} = -\frac{8}{9}$$

$\begin{array}{l} 2(8) \quad 3(63) \\ 2(4) \quad 3(21) \\ 2(2) \quad 7(7) \\ \hline 1 \quad 1 \end{array}$

$\begin{array}{l} -2 \cdot 2 \cdot 2 \\ 3 \cdot 3 \cdot 7 \\ \hline -2 \cdot 2 \cdot 2 \\ 3 \cdot 3 \\ \hline -8 \\ 9 \end{array}$

$-\frac{8}{63} \cdot \frac{7}{1} = -\frac{8}{9}$ *write*

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

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

$$\frac{5}{4} \left(-\frac{9}{10} \right) = \frac{5}{2 \cdot 2} \cdot \frac{-3 \cdot 3}{2 \cdot 5} = -\frac{3 \cdot 3}{2 \cdot 2 \cdot 2} = -\frac{9}{8}$$

$\begin{array}{l} 2(4) \quad 3(9) \quad 2(10) \\ 2(2) \quad 3(3) \quad 5(5) \\ \hline 1 \quad 1 \quad 1 \end{array}$

$\begin{array}{l} 5 \\ 2 \cdot 2 \cdot 2 \cdot 5 \\ \hline -3 \cdot 3 \\ 2 \cdot 2 \cdot 2 \\ \hline -9 \\ 8 \end{array}$

95. Perform the subtraction.

$$-24 - 1$$

$-24 - 1 =$

Answer: -25

-24 - 1 = -25 =

PEMDAS

96. Perform the indicated operations.

$-8 - 17 - (-13)$

$-8 - 17 - (-13) = \text{[]}$

Answer: -12

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

$-8 - 17 + 13 =$

$-25 + 13 =$

$-12 =$

97. Simplify.

$-1(-4) + 4$

$-1(-4) + 4 = \text{[]}$

Answer: 8

PEMDAS

$-1(-4) + 4 =$

$4 + 4 =$

$8 =$

98. Simplify.

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

$\frac{-8(-5)}{10} = \text{[]}$ (Type an integer or a simplified fraction.)

Answer: 4

PEMDAS

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

10

$\frac{40}{10} =$

$4 =$

$\begin{array}{r} 4 \\ 10 \overline{)40} \\ \underline{(40)} \\ 0 \end{array}$

99. Simplify.

$7 - 15 - 3$

$7 - 15 - 3 = \text{[]}$

Answer: -11

PEMDAS

$7 - 15 - 3 =$

$-8 - 3 =$

$-11 =$

100. Simplify.

$1 + 9(-2)$

$1 + 9(-2) = \text{[]}$

Answer: -17

PEMDAS

$1 + 9(-2) =$

$1 - 18 =$

$-17 =$

101. Simplify.

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

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

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

PEMDAS

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

$$\frac{8}{9} \left(\frac{3-8}{10} \right) = \frac{2 \cdot 2 \cdot (-1)}{3 \cdot 3} =$$

$$\frac{8}{9} \left(\frac{-5}{10} \right) =$$

$$\frac{2 \cdot 2 \cdot 2}{3 \cdot 3} \left(\frac{-5}{2 \cdot 5} \right) = \frac{-4}{9}$$

102. Simplify.

$$-9 + 8 + 4$$

$$-9 + 8 + 4 = \text{[]}$$

Answer: -7

PEMDAS

$$-9 + 8 \div 4 =$$

$$-9 + 2 =$$

$$-7 =$$

103. Simplify.

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

$$6(-9) - (-14) = \text{[]}$$

Answer: -40

PEMDAS

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

$$-54 + 14 =$$

$$-40 =$$

104. Simplify.

$$-18 - 11(2)$$

$$-18 - 11(2) = \text{[]}$$

Answer: -40

PEMDAS

$$-18 - 11(2) =$$

$$-18 - 22 =$$

$$-40 =$$

105. Simplify.

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

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

Answer: 8

PEMDAS

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

$$[6 - 4]^3 =$$

$$[2]^3 =$$

$$2 \cdot 2 \cdot 2 = 8$$

106. Simplify.

$$(3 - 13) + 5$$

$$(3 - 13) + 5 = \text{[]}$$

Answer: -2

PEMDAS

$$(3 - 13) + 5 =$$

$$(-10) + 5 =$$

$$-2 =$$

107. Simplify.

$$(-38 - 34) + 18 - 26$$

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

Answer: -30

PEMDAS

$$\begin{aligned} (-38 - 34) \div 18 - 26 &= \\ (-72) \div 18 - 26 &= \\ -4 - 26 &= \\ -30 &= \end{aligned}$$

108. Simplify.

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

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

Answer: -60

PEMDAS

$$\begin{aligned} 3 - 5 \cdot 9 - 18 &= \\ 3 - 45 - 18 &= \\ -42 - 18 &= \\ -60 &= \end{aligned}$$

109. Simplify.

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

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

Answer: 20

PEMDAS

$$\begin{aligned} (-6)^2 - 4^2 &= \\ (-6)(-6) - (4)(4) &= \\ 36 - 16 &= \\ 20 &= \end{aligned}$$

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

$$9 + 6z$$

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

Answer: -3

PEMDAS

$$\begin{aligned} 9 + 6z &= \\ 9 + 6(-2) &= \\ 9 - 12 &= \\ -3 &= \end{aligned}$$

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

$$5x - z$$

$5x - z =$ (Simplify your answer.)

Answer: -18

PEMDAS

$$\begin{aligned} 5x - z &= \\ 5(-4) - (-2) &= \\ -20 + 2 &= \\ -18 &= \end{aligned}$$

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

PEMDAS

$$\begin{aligned} y^3 - 5x &= \\ (1)^3 - 5(-6) &= \\ (1)(1)(1) - 5(-6) &= \\ 1 + 30 &= \\ 31 &= \end{aligned}$$

PEMDAS

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

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

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

Answer: -4

$$\begin{aligned} & \frac{3(8) - 12}{(-3)} = \\ & \frac{24 - 12}{-3} = \\ & \frac{12}{-3} = \textcircled{-4} \end{aligned}$$

114. Simplify the expression by combining like terms.

$$2d + 3d$$

$2d + 3d =$

Answer: 5d

$$\begin{aligned} & 2d + 3d = \\ & \textcircled{5d} = \end{aligned}$$

115. Simplify the expression by combining like terms.

$$8x - 19x$$

$8x - 19x =$

Answer: -11x

$$\begin{aligned} & 8x - 19x = \\ & \textcircled{-11x} = \end{aligned}$$

116. Combine like terms.

$$6x + x - 9x$$

$6x + x - 9x =$

Answer: -2x

$$\begin{aligned} & 6x + x - 9x = \\ & 6x + 1x - 9x = \\ & 7x - 9x = \\ & \textcircled{-2x} = \end{aligned}$$

117. Simplify the expression by combining like terms.

$$4q + 7q + 6q - 3$$

$4q + 7q + 6q - 3 =$

Answer: 17q - 3

$$\begin{aligned} & 4q + 7q + 6q - 3 = \\ & 11q + 6q - 3 = \\ & \textcircled{17q - 3} = \end{aligned}$$

118. Simplify the following expression by combining like terms.

$$5x + 6 - x - 11$$

$5x + 6 - x - 11 =$ (Simplify your answer.)

Answer: 4x - 5

$$\begin{aligned} & 5x + 6 - x - 11 = \\ & 5x + 6 - 1x - 11 = \\ & \textcircled{4x - 5} = \end{aligned}$$

119. Multiply.

$6(p + 2)$

$6(p + 2) = \boxed{}$

Answer: $6p + 12$

$6(p+2) =$
 $6p + 12 =$

120. Multiply.

$3(2y - 2)$

$3(2y - 2) = \boxed{}$

Answer: $6y - 6$

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

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

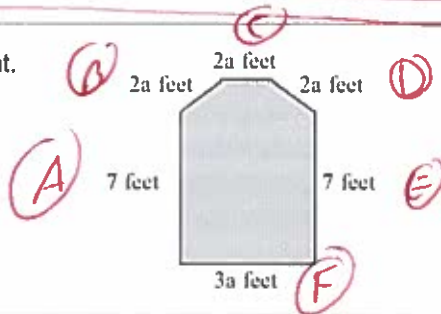
$4 + 5(w + 4) + w$

$4 + 5(w + 4) + w = \boxed{}$

Answer: $6w + 24$

$4 + 5(w+4) + w =$
 $4 + 5w + 20 + 1w =$
 $6w + 24 =$

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



The perimeter is $\boxed{}$ (1) $\boxed{}$
 (Simplify your answer.)

- (1) ft.
- sq ft.
- cu ft.

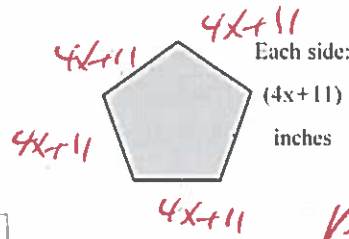
Answers $9a + 14$

(1) ft.

$P = A + B + C + D + E + F$
 $P = 7 + 2a + 2a + 2a + 7 + 3a$

$P = 9a + 14$

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



$N = 4x + 11$

Each side:
($4x + 11$)
inches

$P = 5N$

$P = 5(4x + 11)$

$P = 20x + 55$

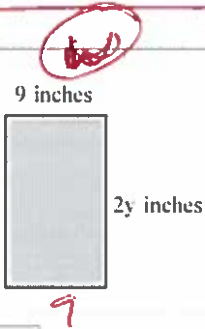
The perimeter is () (1)
(Simplify your answer.)

- (1) sq in.
- in.
- cu in.

Answers $20x + 55$

(1) in.

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



$L = 2y$

$A = LW$

$A = (2y)(9)$

$A = 18y$

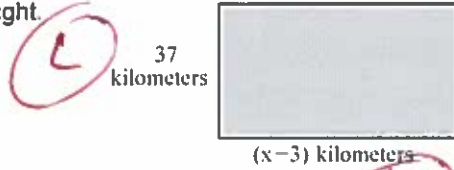
The area of the rectangle is () (1)
(Simplify your answer.)

- (1) sq in.
- in.
- cu in.

Answers $18y$

(1) sq in.

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



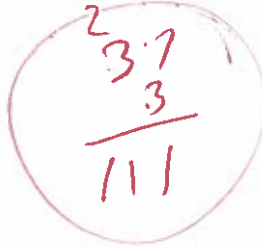
$$A = LW$$

$$A = (37)(x-3)$$

$$A = 37x - 111$$

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

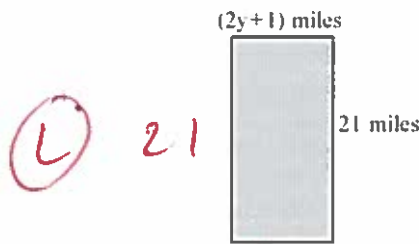
- (1) km.
- sq km.
- cu km.



Answers $37x - 111$

(1) sq km.

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



$$A = LW$$

$$A = (21)(2y+1)$$

$$A = 42y + 21$$

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 $\pi \approx 3.14$.



$$A = \pi r^2$$

$$A = 3.14 r^2$$

$$A = 3.14 (10)^2$$

$$A = 3.14 (10)(10)$$

$$A = 3.14 (100)$$

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.

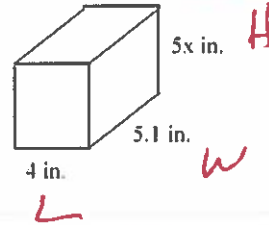
$$\begin{array}{r} 3.14 \\ \times 100 \\ \hline 000 \\ 000 \\ 314 \\ \hline 314.00 \end{array}$$

$$A = 314.00$$

OR

$$A = 314$$

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



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

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

Answers 102x
(1) cubic inches.

$$V = LWH$$

$$V = (4)(5.1)(5x)$$

$$V = 20.4(5x)$$

$$V = 102x$$

$$\begin{array}{r} 5.1 \\ \times 4 \\ \hline 20.4 \end{array}$$

$$\begin{array}{r} 20.4 \\ \times 5 \\ \hline 102.0 \end{array}$$

129. Solve. Check your solution.

$$x + 5 = 22$$

The solution is $x =$.

Answer: 17

$$x + 5 = 22$$

$$x + 5 - 5 = 22 - 5$$

$$x = 17$$

130. Solve. Check your solution.

$$d - 10 = -3$$

The solution is $d =$

Answer: 7

$$d - 10 = -3$$

$$d - 10 + 10 = -3 + 10$$

$$d = 7$$

131. Solve. Check your solution.

$$23 = y - 7$$

The solution is $y =$

Answer: 30

$$23 = y - 7$$

$$23 + 7 = y - 7 + 7$$

$$30 = y$$

132. Solve. Check your solution.

$$-19 = x + 3$$

The solution is $x =$

Answer: -22

$$-19 = x + 3$$

$$-19 - 3 = x + 3 - 3$$

$$-22 = x$$

133. Solve. Check your solution.

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

$m =$

Answer: 19

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

$$10 = m - 9$$

$$10 + 9 = m - 9 + 9$$

$$19 = m$$

134. Solve. Check the solution.

$$x - 0.8 = 3.9$$

$x =$

Answer: 4.7

$$x - 0.8 = 3.9$$

$$x - 0.8 + 0.8 = 3.9 + 0.8$$

$$x = 4.7$$

3.9	1
+ 0.8	
4.7	

135. Solve.

$$8x = 24$$

The solution is $x =$

Answer: 3

$$8x = 24$$

$$\frac{8x}{8} = \frac{24}{8}$$

$$x = 3$$

136. Solve.

$$-7z = 28$$

The solution is $z =$

Answer: -4

$$-7z = 28$$

$$\frac{-7z}{-7} = \frac{28}{-7}$$

$$z = -4$$

137. Solve the following equation.

$$0.5z = -20$$

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

Answer: -40

$$0.5z = -20$$

$$\frac{0.5z}{0.5} = \frac{-20}{0.5}$$

$$z = -40$$

$$0.5 \overline{) 20.0} \begin{array}{r} 40.0 \\ - (20) \\ \hline 0 \\ 0 \\ \hline 0 \end{array}$$

138. Solve the following equation.

$$5z = -70$$

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

Answer: -14

$$5z = -70$$

$$\frac{5z}{5} = \frac{-70}{5}$$

$$z = -14$$

$$5 \overline{) 70} \begin{array}{r} 14 \\ - (5) \\ \hline 20 \\ - (20) \\ \hline 0 \end{array}$$

139. Solve.

$$-0.5x = -20$$

$x =$

Answer: 40

$$-0.5x = -20$$

$$\frac{-0.5x}{-0.5} = \frac{-20}{-0.5}$$

$$x = 40$$

$$0.5 \overline{) 20.0} \begin{array}{r} 40.0 \\ - (20) \\ \hline 0 \\ 0 \\ \hline 0 \end{array}$$

140. Solve.

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

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

Answer: 12

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

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

$$\frac{4 \cdot 3 \cdot 3}{3 \cdot 1} = x$$

$$\frac{4 \cdot 3}{1} = x$$

$$12 = x$$

$$12 = x$$

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

$$9w - 15w = 54$$

$w =$

Answer: -9

$$9w - 15w = 54$$

$$-6w = 54$$

$$\frac{-6w}{-6} = \frac{54}{-6}$$

$$w = -9$$

142. Solve the following equation.

$$6x + 24 = 0$$

The solution is $x = \boxed{}$.
(Simplify your answer.)

Answer: -4

$$6x + 24 = 0$$

$$6x + \cancel{24} - \cancel{24} = 0 - 24$$

$$6x = -24$$

$$\frac{6x}{6} = \frac{-24}{6}$$

$$x = -4$$

143. Solve the equation.

$$5x - 1 = 6x + 5$$

$x = \boxed{}$

Answer: -6

$$5x - 1 = 6x + 5$$

$$5x - \cancel{x} + \cancel{x} = 6x + 5 + 1$$

$$5x = 6x + 6$$

$$5x - 6x = 6x + 6 - 6x$$

$$-1x = 6$$

$$\frac{-1x}{-1} = \frac{6}{-1}$$

$$x = -6$$

144. Solve the following equation.

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

The solution is $x = \boxed{}$.
(Simplify your answer.)

Answer: -5

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

$$9x + \cancel{23} - \cancel{23} = 5x + 3 - 23$$

$$9x = 5x - 20$$

$$9x - 5x = 5x - 20 - 5x$$

$$4x = -20$$

$$\frac{4x}{4} = \frac{-20}{4}$$

$$x = -5$$

145. Solve the equation.

$$5 - 7x = 14 + 2x$$

$x = \boxed{}$

Answer: -1

$$5 - 7x = 14 + 2x$$

$$\cancel{5} - 7x - \cancel{5} = 14 + 2x - 5$$

$$-7x = 2x + 9$$

$$-7x - 2x = 2x + 9 - 2x$$

$$-9x = 9$$

$$\frac{-9x}{-9} = \frac{9}{-9}$$

$$x = -1$$

146. Solve the equation.

$$-4.5x - 4 = -4.0x + 1$$

$x = \boxed{}$ (Simplify your answer. Type an integer or a decimal.)

Answer: -10

$$-4.5x - 4 = -4.0x + 1$$

$$-4.5x - \cancel{4} + \cancel{4} = -4.0x + 1 + 4$$

$$-4.5x = -4.0x + 5$$

$$-4.5x + 4.0x = -4.0x + 5 + 4.0x$$

$$-.5x = 5$$

$$\frac{-.5x}{-.5} = \frac{5}{-.5}$$

$$x = -10$$

$$\begin{array}{r} 10. \\ 5 \overline{) 50.} \\ \underline{50} \\ 0 \end{array}$$

147. Solve the equation.

$$-2(y + 1) = 0$$

$y = \boxed{}$ (Simplify your answer.)

Answer: -1

$$-2(y + 1) = 0$$

$$-2y - 2 = 0$$

$$-2y - \cancel{2} + \cancel{2} = 0 + 2$$

$$-2y = 2$$

$$\frac{-2y}{-2} = \frac{2}{-2}$$

$$y = -1$$

148. Solve the equation.

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

y =

Answer: 0

$$\begin{aligned}
 4(y-2) &= 2y-8 & 2y &= 0 \\
 4y-8 &= 2y-8 & \frac{2y}{2} &= \frac{0}{2} \\
 4y-8+8 &= 2y-8+8 & & \\
 4y &= 2y & & \\
 4y-2y &= 2y-2y & & \\
 & & & \text{y=0}
 \end{aligned}$$

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

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

w =

Answer: 4

$$\begin{aligned}
 3(w-2) &= 6 & \frac{3w}{3} &= \frac{12}{3} \\
 3w-6 &= 6 & & \\
 3w-6+6 &= 6+6 & & \\
 3w &= 12 & & \text{w=4}
 \end{aligned}$$

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

$$(x) + (x+17) = 27$$

$$x + x + 17 = 27$$

$$1x + 1x + 17 = 27$$

$$2x + 17 = 27$$

$$2x + 17 - 17 = 27 - 17$$

$$2x = 10$$

$$\frac{2x}{2} = \frac{10}{2}$$

$$x = 5$$

$x = \text{Game A}$
 $x + 17 = \text{Game B}$

$$x = 5 = \text{Game A}$$

$$x + 17 = 5 + 17 = 22$$

Game B