

Summer Math Packet
For Students Entering
Grade 7 Math

WEEK ONE:

1. Annie and Bernie built a maze for their hamsters. Annie's hamster completed the maze 7 seconds less than twice the time it took Bernie's hamster to complete the maze. If Bernie's hamster completed the maze in b seconds, which expression represents the time, in seconds, it took Annie's hamster to complete the maze?

A. $7 - 2b$

C. $2b + 7$

B. $2b - 7$

D. $\frac{2b}{7}$

2. A jeweler makes bracelets from silver chain. She made 7 bracelets that were each $5\frac{3}{4}$ inches long. She also made 3 bracelets that were each $6\frac{1}{2}$ inches long. What is the total length, in inches, of silver chain that the jeweler used to make all 10 bracelets?

F. $22\frac{1}{4}$

H. $59\frac{3}{4}$

G. 53

I. $122\frac{1}{2}$

3. A concession stand at a baseball field pays \$0.05 for each packet of mustard. How much will the concession stand pay for 7,000 packets of mustard?

4. On his whiteboard, Jamal correctly wrote a mixed number in lowest terms that was equivalent to 3.35. What number did Jamal write on his whiteboard?

A. $3\frac{3}{5}$

C. $3\frac{7}{20}$

B. 53

D. $3\frac{35}{100}$

5. Which of the following is NOT equivalent to $\frac{8}{10}$?

F. $\frac{80}{100}$

H. 0.8

G. 8%

I. 80%

6. The steps Laura used to solve an equation are shown below. What should Laura change in order to solve the equation correctly?

$$\begin{array}{l} 60 = 6x - 34 \\ \frac{60}{6} = \frac{6x}{6} - 34 \\ 10 = x - 34 \\ 10 + 34 = x - 34 + 34 \\ 44 = x \end{array}$$

A. Subtract 60 from both sides before dividing by 6.

B. Add 34 to both sides before dividing by 6.

C. Subtract 34 from both sides before dividing by 6.

D. Rewrite the equation as $6x = 60 - 34$.

7. Four customers at a deli each bought a different item. Each item had a different price per pound. The amount of the item each person bought and the total amount each person paid are shown below.

Francesca: 0.7 pound for \$11.19

Gail: $\frac{1}{2}$ pound for \$12.00

Henry: 0.62 pound for \$10.75

Isaac: $1\frac{1}{4}$ pounds for \$20.63

Which customer bought the item that had the lowest price per pound?

F. Francesca

H. Henry

G. Gail

I. Isaac

8. Simone has \$40 to buy baseballs for her team's practice. Each baseball costs \$3. Which inequality represents this situation?

A. $3b < 40$

C. $3b < 39$

B. $3b > 40$

D. $3b > 39$

9. Which inequality represents the solution to the inequality below?

$$26 < 6a$$

F. $a < 20$

H. $a < 4\frac{1}{3}$

G. $a > 20$

I. $a > 4\frac{1}{3}$

10. Four squares measuring 5 centimeters on each side are combined to create two different figures, as shown below.

Figure Y



Figure Z



Which statement correctly compares the perimeters of Figure Y and Figure Z?

A. The perimeter of Figure Y is equal to the perimeter of Figure Z.

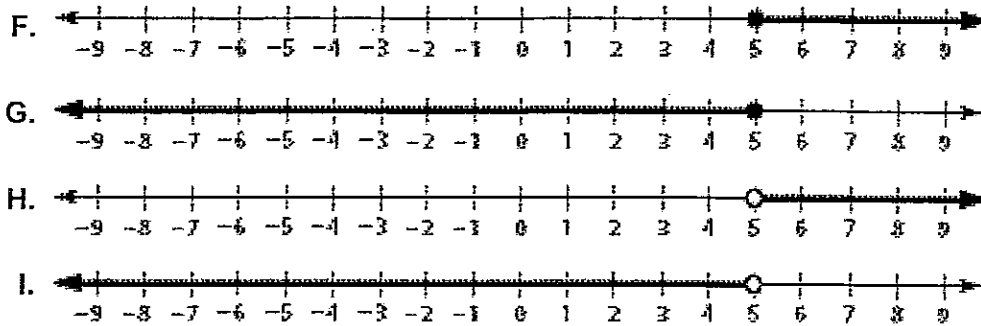
B. The perimeter of Figure Y is equal to 2 times the perimeter of Figure Z.

C. The perimeter of Figure Y is 2 centimeters less than the perimeter of Figure Z.

D. The perimeter of Figure Y is 10 centimeters less than the perimeter of Figure Z.

11. Which graph represents the inequality shown below?

$$x > 5$$



12. **SHORT RESPONSE** For each expression, explain how to use the properties of addition and multiplication to simplify the expression with the easiest computation possible. Show your work and name the properties you used.

Part A $47 \times 38 + 47 \times 62$

Part B $752 + (467 + 248)$

13. What is the missing number in the input-output table below?

Input	3	5	?	17
Output	16	22	31	58

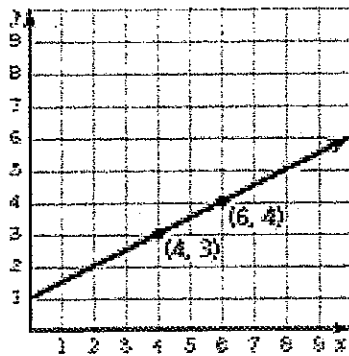
A. 8

C. 11

B. 9

D. 14

14. Which equation represents the line in the graph below?



F. $y = 4x - 3$

H. $y = \frac{1}{2}x + 1$

G. $y = 2x + 1$

I. $y = \frac{1}{2}x - 1$

15. **EXTENDED RESPONSE** The manager of an appliance store has 6 washing machines for sale. The prices of the six machines are shown in the box below.

\$450, \$400, \$450, \$599, \$675, \$500

The manager decides to also sell a seventh washing machine that has many additional features. The price of this machine is **greater than** \$1000. Describe how each of the following measures will change when the price of the seventh washing machine is included with the prices of the 6 original machines.

Part A the **mean** Mean _____

Part B the **mode** Mode _____

Part C the **range** Range _____

Part D the **median** Median _____

Copy and complete the statement using the specified property.

16. Commutative Property of Addition: $h + 11 = \underline{\quad?}$

17. Commutative Property of Multiplication: $12 \cdot k = \underline{\quad?}$

18. Associative Property of Addition: $21 + (9 + 8) = \underline{\quad?}$

19. Associative Property of Multiplication: $12 \cdot (5 \cdot 4) = \underline{\quad?}$

20. Multiplication Property of One: $18 \cdot w \cdot 1 = \underline{\quad?}$

21. Addition Property of Zero: $26 + c + 0 = \underline{\quad?}$

Use the distributive property to simplify the expression.

22. $8(a + 6)$

23. $7(p - 5)$

24. $10(9 + x)$

25. $6(2 + a + 9)$

WEEK TWO:

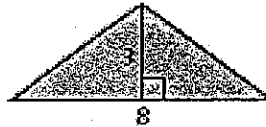
Simplify the expression. Identify the properties used.

26. $4(x - 3)$

27. $(3 \cdot x) \cdot 7$

28. Use a formula to find the area of the figure.

$A = \frac{1}{2} b h$



29. Tickets to a basketball game cost \$4 for adults and \$2 for children. Write an expression that gives the total cost for a adults and c children to attend the game. What is the total cost for a family of 2 adults and 3 children to attend the game?

Perform the indicated operation.

30. $\frac{7}{9} \times \frac{6}{5}$

31. 2.35×4

32. $3\frac{1}{8} \times 2\frac{4}{9}$

33. 0.35×1.2

34. $\frac{3}{5} \div \frac{1}{4}$

35. $2\frac{1}{4} \div \frac{3}{8}$

36. $3.6 \div 3$

37. $0.25 \overline{)7.38}$

Estimate the product or the quotient.

38. $\frac{5}{6} \times \frac{10}{13}$

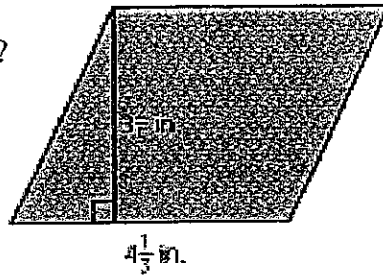
39. $\frac{15}{16} \div 2$

40. $3\frac{5}{8} \times 9\frac{1}{2}$

41. $67\frac{4}{7} \div 2$

42. $500 \div 4\frac{13}{14}$

43. Estimate the area of the parallelogram.
Did you overestimate or underestimate?



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

44. 0.6

45. 3.36

46. 0.325

Write the fraction as a decimal.

47. $\frac{3}{5}$

48. $\frac{3}{8}$

49. $\frac{31}{25}$

50. A recipe for a batch of 3 dozen chocolate chip cookies calls for 3 cups of flour, 1 cup of sugar, and 2 cups of chocolate chips. How much of each ingredient should be used to make 2 dozen cookies?

WEEK THREE:

Estimate by rounding.

51. 6.3×7.2

52. $12\frac{1}{8} \div 2\frac{3}{4}$

53. 24% of 102

54. A twelve-pack of juice costs \$4.20. An eighteen-pack costs \$5.40. Which is the better buy?

Write the fraction or decimal as a percent.

55. $\frac{3}{8}$

56. 0.76

57. $\frac{6}{5}$

58. 3.25

59. $\frac{1}{4}$

60. 1.26

61. $1\frac{2}{3}$

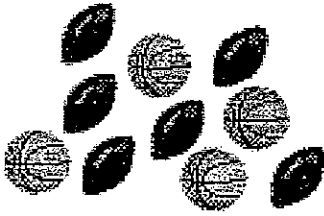
62. .032

63. Chris, Mary Beth, and Allison are discussing the number of oranges grown in Florida. Chris says that approximately 14.6% of the world's oranges are grown in Florida, Mary Beth says that 292 out of every 2000 oranges are grown in Florida, and Allison says that 0.146 of the world's oranges are grown in Florida. Who is correct? **Explain** your reasoning.

64. Use a number line to order 42%, $\frac{5}{12}$, and 0.425 from least to greatest.

65. A pizza shop offers 30% off the price of a large pizza every Tuesday night. If the regular price is \$25, what is the discounted price?

66. Write the ratio of basketballs to footballs as a fraction in simplest form.



67. You run 6 miles in 1 hour. At this rate, how long will it take you to run a marathon (approximately 26 miles)?

68. What are the mean, median, mode, and range for the data?

3, 8, 6, 6, 6, 4, 9, 9, 12

Mean (average)

Median (middle number in order)

Mode (most often)

Range (highest – lowest)

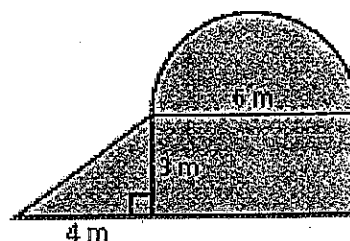
69. Katie makes 70% of her shots from the free-throw line. Can you determine how many consecutive free-throws she must make in order to increase her percentage to 75%? **Explain.**

70. Find the **total area** of the figure. Use 3.14 for π .

Area of rectangle: $A = bh$

Area of triangle: $A = \frac{1}{2}bh$

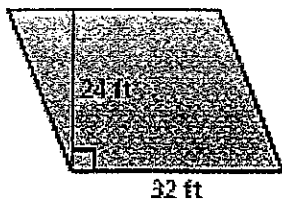
Area of semicircle: $A = \frac{1}{2}\pi r^2$



Use a formula to find the area of the figure.

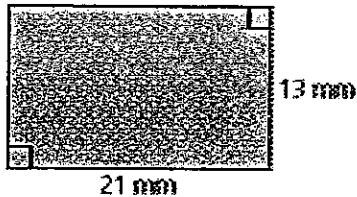
71.

$A = b \times h$

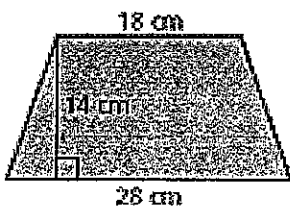


72.

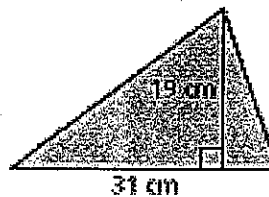
$A = b \times h$



73. $A = (b_1 + b_2) \times h \div 2$

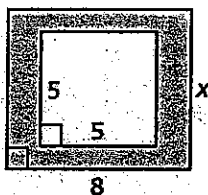


74. $A = b \times h \div 2$



Write a formula for the area of the shaded region in terms of x .

75.



WEEK FOUR:

76. A farmer builds a fence to enclose a rectangular pasture. He uses 160 feet of fence. Find the total area of the pasture if it is 50 feet long. $A = bh$

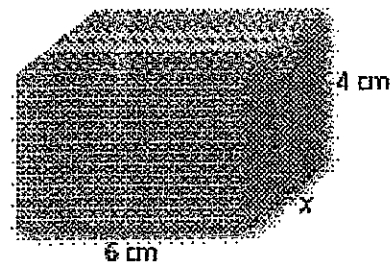
77. Find three possible sets of dimensions for a parallelogram whose area is 120 square feet.

Solve the equation.

78. $2s + 3 = 14s$

79. $c + 4c = 15$

80. Write and solve an equation to find the width of the box if its volume is 96 cubic centimeters. $V = lwh$



Write the word sentence as an inequality.

81. A number t is less than 7.

82. A number m is at least -3 .

Write the phrase as an expression.

83. twice a number n plus 6

84. 7 less than 3 times a number m

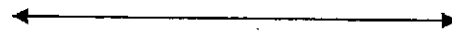
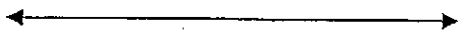
85. the difference of 25 and a number w

86. You have two cats. Each cat has a litter of 6 kittens. Write an expression that describes the total number of cats and kittens you have.

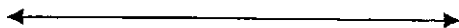
Solve the inequality. Graph the solution.

87. $\frac{b}{3} > 6$

88. $55 > 11a$



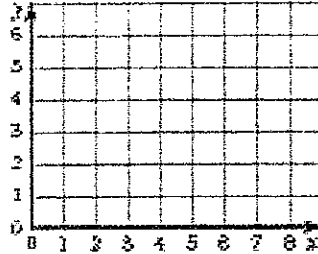
89. $8t > 24$



90. One cell phone plan costs \$15 per month plus \$0.10 per minute used. A second cell phone plan costs \$50 per month for unlimited use. Write and solve an inequality to find when the second plan is cheaper than the first.

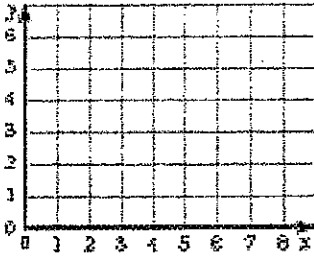
91. Draw a mapping diagram of the set of ordered pairs.

$(2, 3), (3, 5), (4, 1), (5, 2)$



92. The table shows the total cost of downloading x songs.

- a. Graph the data.



Songs	Cost (\$)
4	3
6	4.50
8	6

- b. Find a function to describe the data.

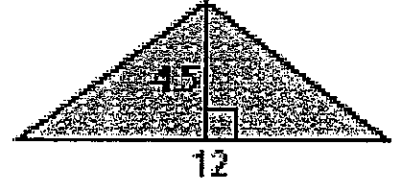
- c. At this rate, how much will it cost to download 12 songs?

Simplify the expression. Identify the properties used.

93. $4(x + 3)$

94. $(3 \cdot x) \cdot 7$

95. Use a formula $b \times h \div 2$ to find the area of the figure.



96. Tickets to a basketball game cost \$3.50 for adults and \$2 for children. Write an expression that gives the total cost for a adults and c children to attend the game. What is the total cost for a family of 2 adults and 3 children to attend the game?

Perform the indicated operation.

97. $\frac{3}{7} \times \frac{4}{6}$

98. 2.48×3

99. $4\frac{3}{8} \times 3\frac{2}{5}$

100. 0.45×3.2

WEEK FIVE:

Perform the indicated operation.

101. $\frac{6}{7} \div \frac{2}{3}$

102. $4\frac{3}{5} \div \frac{1}{8}$

103. $4.8 \div 2$

104. $0.35 \overline{)1.61}$

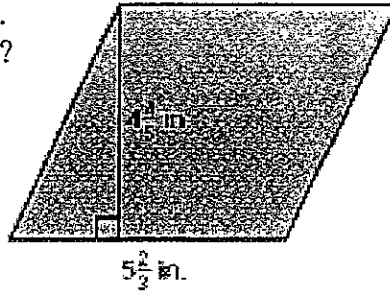
Evaluate the expression.

105. You buy 64 oranges for \$22.75. How much does each orange cost?

106. You and three of your friends go parasailing for \$128.40. You split the cost evenly. How much does each person pay?

107. The yearly precipitation of Key West, Florida is 38.94 inches. About how much precipitation falls each month?

108. Estimate the area of the parallelogram.
Did you overestimate or underestimate?



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

109. 0.3

110. 4.68

111. 0.852

Write the fraction as a decimal.

112. $\frac{4}{5}$

113. $\frac{3}{16}$

114. $\frac{45}{20}$

115. A recipe for a batch of 3 dozen chocolate chip cookies calls for $3\frac{1}{2}$ cups of flour, 1 cup of sugar, and $2\frac{3}{4}$ cups of chocolate chips. How much of each ingredient should be used to make 2 dozen cookies?

Estimate by rounding.

116. 3.8×9.2

117. $13\frac{3}{8} \div 5\frac{3}{4}$

118. 24% of 22

119. A twelve-pack of juice costs \$3.90. An eighteen-pack costs \$5.49. Which is the better buy?

Write the fraction or decimal as a percent.

120. $\frac{5}{8}$

121. 0.04

122. $\frac{21}{5}$

123. 2.12

124. $1\frac{1}{3}$

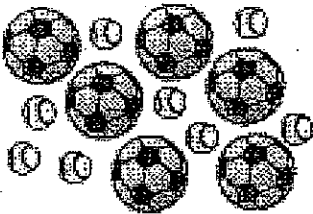
125. Chris, Mary Beth, and Allison are discussing the number of oranges grown in Florida. Chris says that approximately 14.6% of the world's oranges are grown in Florida, Mary Beth says that 292 out of every 2000 oranges are grown in Florida, and Allison says that 0.146 of the world's oranges are grown in Florida. Who is correct? **Explain** your reasoning.

WEEK SIX:

126. Use a number line to order 120%, $\frac{7}{6}$, and 1.17 from least to greatest.

127. A pizza shop offers 30% off the price of a large pizza every Tuesday night. If the regular price is \$25.50, what is the discounted price?

128. Write the ratio of baseballs to soccer balls as a fraction in simplest form.



129. You run 5 miles in 1 hour. At this rate, how long will it take you to run a marathon (approximately 26 miles)?

130. Determine the mean, median, mode, and range for the data.

12, 12, 10, 8, 9, 9, 9, 11, 11, 8

Mean= _____

Mode= _____

Median= _____

Range= _____

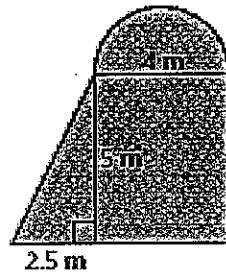
131. Katie makes 65% of her shots from the free-throw line. Can you determine how many consecutive free-throws she must make in order to increase her percentage to 68%? **Explain.**

132. Find the area of the figure. Use 3.14 for π .

$$b \times h \div 2$$

$$\pi \times r^2 \div 2$$

$$b \times h$$



133. A farmer builds a fence to enclose a rectangular pasture. He uses 155 feet of fence. Find the total area of the pasture if it is 45.5 feet long.

Solve the equation.

134. $\frac{3}{4}s + 2 = 14$

135. $1.5c + c = 20$

Tell whether the ordered pair is a solution of the equation.

136. $y = x + 5; (2, 7)$

137. $y = 9x; (3, 12)$

138. $y = 2x + 3; (4, 12)$

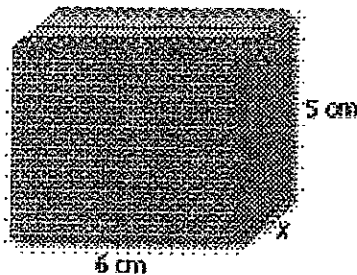
139. $y = \frac{x}{2} - 4; (8, 0)$

140. You are running at a rate of 6 miles per hour.

a. Write an equation that relates the distance d traveled in h hours.

b. How many miles do you run in 2 hours?

141. **Write and solve** an equation to find the width of the box if its volume is 80 cubic centimeters.



Write the word sentence as an inequality.

142. A number w is less than 5.5.

143. A number m is at least 7.

144. One cell phone plan costs \$12.50 per month plus \$0.15 per minute used. A second cell phone plan costs \$42.50 per month for unlimited use. Write and solve an inequality to find when the second plan is less expensive than the first.

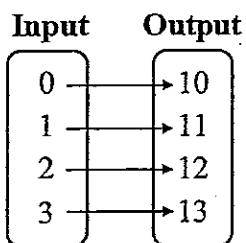
Songs	Cost (\$)
3	1.50
5	
7	3.50

145. Draw a mapping diagram of the set of ordered pairs. (input-output table here)

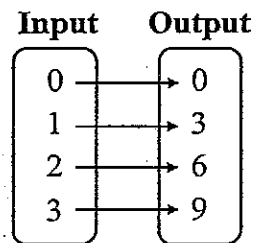
$(0,1), (2,5), (4,1), (3,2)$

Write an equation that describes the function.

146.



147.



Write an equation that describes the function.

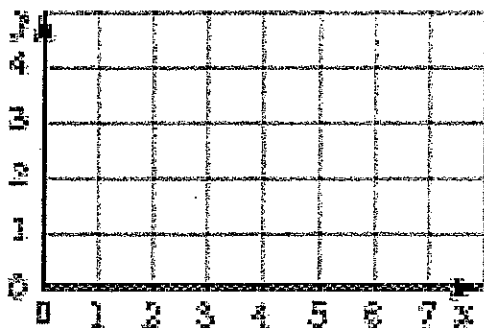
148. The output is eight less than the input.

149. The output is double the input.

150. The table shows the total cost of downloading x songs.

Songs	Cost (\$)
3	1.50
5	2.50
7	3.50

a. Graph the data.



b. Find a function to describe the data.

c. At this rate, how much will it cost to download 12 songs?

WEEK SEVEN:

Write the ordered pair that corresponds to the point.

151. Point *A*

152. Point *B*

153. Point *C*

154. Point *D*

155. Point *E*

156. Point *F*

157. Point *G*

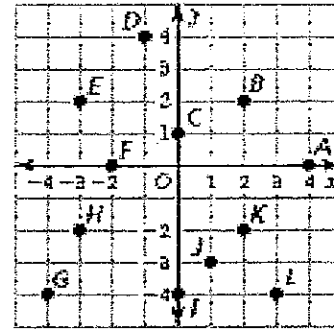
158. Point *H*

159. Point *I*

160. Point *J*

161. Point *K*

162. Point *L*



Put the data from the input-output table in a graph. Describe the pattern.

163.

Input, <i>x</i>	-1	0	1	2
Output, <i>y</i>	3	1	-1	-3

164.

Input, <i>x</i>	2	4	6	8
Output, <i>y</i>	-1	-1	-1	-1

165.

Input, <i>x</i>	-5	-3	-1	1
Output, <i>y</i>	1	3	5	7

166.

Input, <i>x</i>	-2	0	2	4
Output, <i>y</i>	5	2	1	2

Evaluate the expression when $x = 6$, $y = -2$, and $z = -3$.

167. $\frac{x}{2} + z$

168. $y - x$

169. $x + y + z$

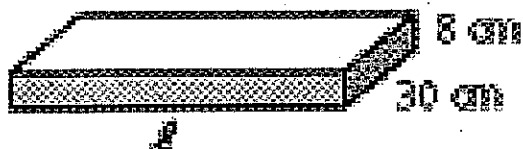
170. $|z|$

171. $z - y$

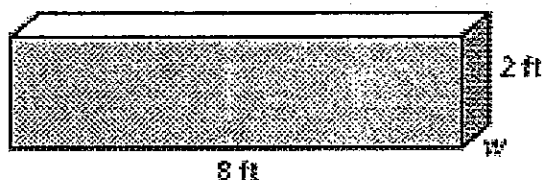
172. $|x + y|$

Write and solve an equation to find the missing dimension of the rectangular prism. $V = l \times w \times h$

173. Volume = $18,000 \text{ cm}^3$



174. Volume = 16 ft^3

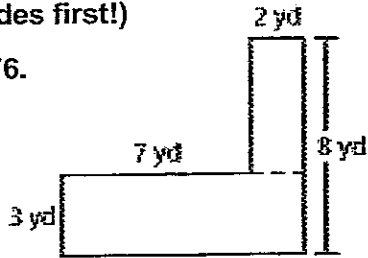


175. A cube has sides of length 2 meters. **Explain** what happens to the volume of the cube if the length of the sides is doubled.

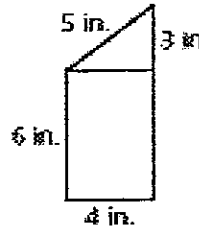
WEEK EIGHT:

Find the perimeter of the figure. (hint: Don't forget to find the missing sides first!)

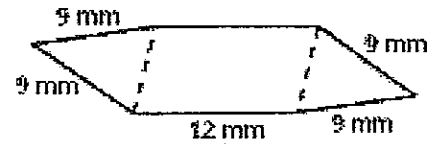
176.



177.



178.



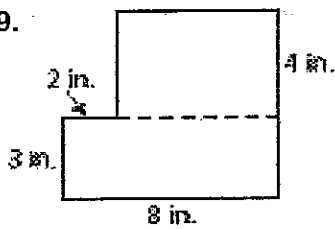
Find the area of the figure. Use these formulas:

$$A = l \times w$$

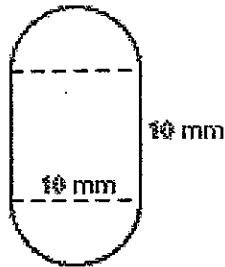
$$A = b \times h \div 2$$

$$A = \pi \cdot r^2$$

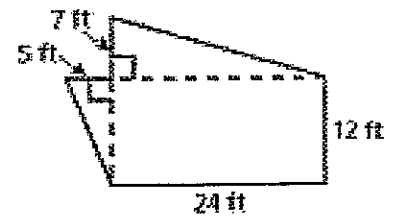
179.



180.



181.



Find the distance. Use $d = r \times t$

182. $d = \underline{\quad? \quad}, r = 10 \text{ ft/sec}, t = 6 \text{ sec}$

183. $d = \underline{\quad? \quad}, r = 25 \text{ mi/h}, t = 3 \text{ h}$

184. $d = \underline{\quad?}$, $r = 14$ m/day, $t = 12$ days

185. $d = \underline{\quad?}$, $r = 72$ ft/min, $t = 14$ min

186. At a grocery store, you buy four cans of soup for \$5. How much would you pay for six cans of soup?

Estimate the percent of the number.

187. 73% of 81

188. 2% of 190

189. 5% of 220

190. 49% of 363

Use a number line to order the numbers from least to greatest.

191. $3\frac{2}{3}$, 362%, 3.66, $3\frac{3}{5}$, 36

192. 0.3, 27.3%, $\frac{11}{40}$, 28%, 0.27



Without finding the quotient, copy and complete the statement using <, >, or =.

193. $4.58 \div 0.57$? $45.8 \div 0.57$

194. $407.3 \div 19.4$? $40.73 \div 1.94$

195. You are saving your money to buy a guitar that costs \$275.75. You have \$40 and plan to save \$7.50 each week. Your uncle decides to give you an additional \$8 each week.

a. How many weeks will you have to save until you have enough money to buy the guitar? **Show** all work.

b. How many more weeks would you have to save to buy a guitar that costs \$339.75? **Explain** how you found your answer.

WEEK ONE ANSWERS:

1.
 - A. The student misinterprets the concept of “less than” and reverses the quantities to be subtracted.
 - B. Correct answer
 - C. The student misinterprets the relationship between Annie’s and Bernie’s hamsters and adds 7 instead of subtracting.
 - D. The student thinks that “less than” means division instead of subtraction.

2.
 - F. The student finds the sum of 7, $5\frac{3}{4}$, 3, and $6\frac{1}{2}$.
 - G. For each type of chain, the student multiplies the number of bracelets by only the whole number part of each mixed number representing the length.
 - H. Correct answer
 - I. The student multiplies the total number of bracelets by the sum of the lengths of the two types of bracelet.

3. Correct answer: 350
Common errors: The student makes a place value error, getting an answer of 3500, 35, 3.5, 0.35, or 0.035.

4.
 - A. The student uses the digits of the decimal number as the numerator and denominator of the fraction.
 - B. The student chooses a mixed number that is close to 3.35 but is not equivalent.
 - C. Correct answer
 - D. The student chooses a mixed number that is equivalent to 3.35 but is not in lowest terms.

5.
 - F. The student does not recognize that $\frac{8}{10}$ and $\frac{80}{100}$ are equivalent fractions, and the student thinks that $\frac{8}{10}$ is equivalent to 8%.
 - G. Correct answer
 - H. The student does not recognize that $\frac{8}{10}$ is equivalent to 0.8, and the student thinks that $\frac{8}{10}$ is equivalent to 8%.
 - I. The student does not recognize that $\frac{8}{10}$ is equivalent to 80%, and the student thinks that $\frac{8}{10}$ is equivalent to 8%.

6. A. The student does not know how to proceed when the variable term is on the right-hand side of the equation and subtracts 60 instead from both sides instead of adding 34 to both sides.
- B. Correct answer
- C. The student does not correctly apply the properties of equations in an attempt to move 34 to the left-hand side.
- D. The student does not correctly apply the properties of equations in an attempt to move the variable term to the left-hand side.
7. F. Correct answer
- G. The student chooses the customer who bought the least amount.
- H. The student chooses the customer who spent the least amount of money.
- I. The student chooses the customer who bought the greatest amount.
8. A. Correct answer
- B. The student uses the incorrect inequality symbol.
- C. The student realizes that Simone can only spend \$39 on baseballs that cost \$3 each, but the student chooses an inequality that excludes the maximum number of baseballs Simone can purchase.
- D. The student realizes that Simone can only spend \$39 on baseballs that cost \$3 each, but the student uses $>$ instead of $<$.
9. F. The student subtracts 6 from both sides rather than dividing both sides by 6. The student also does not reverse the inequality symbol when moving the variable from one side of the inequality to the other.
- G. The student subtracts 6 from both sides rather than dividing both sides by 6.
- H. The student does not reverse the inequality symbol when moving the variable from one side of the inequality to the other.
- I. Correct answer
10. A. The student confuses perimeter with area. The areas of the two figures are equal.
- B. Figure Y is twice as high as Figure Z, so the student thinks that the perimeter of the Figure Y is twice the perimeter of Figure Z.
- C. The student determines that the perimeter of Figure Y contains 2 fewer line segments than Figure Z but does not take into account that each line segment measures 5 centimeters.
- D. Correct answer

11. F. The student uses an incorrect type of circle.
G. The student uses an incorrect type of circle and shades in the wrong direction.
H. Correct answer
I. The student shades in the wrong direction.
12. In **Part A**, the student successfully uses the distributive property to rewrite the expression as 47×100 , getting a result of 4700.
- In **Part B**, the student successfully uses the commutative and associative properties of addition to rewrite the expression as $(752 + 248) + 467$, getting a result of 1467.

13. A. Correct answer
B. The student finds the difference of 31 and 22.
C. The student finds an input halfway between 5 and 17.
D. The student finds the difference of 31 and 22 and adds this number to 5.
14. F. The student uses the numbers from the ordered pair (4, 3).
G. The student uses the inverse of the relationship between y and x , choosing $2x$ instead of $\frac{1}{2}x$.
H. Correct answer
I. The student subtracts 1 from $\frac{1}{2}x$ instead of adding.

15. **Part A Mean:** Add data (3074). Divide by number of machines(6).
When the seventh machine is added the mean will increase.
Add: $3074 + 1000 = 4074$.
Divide by the new number of machines (7). $4074 / 7 = \underline{\$582}$.

Part B Mode: The mode (most frequently occurring score) will not change.

It is still \$450.

Part C Range: The range (highest price minus lowest price) increases.

$$1000 - 400 = \underline{600}.$$

Part D Median: The median (middle number of the ordered set) increases.

$$400, 450, 450, \underline{500}, 599, 675, 1000$$

16. $11 + h$

17. $k \cdot 12$

18. $(21 + 9) + 8$

19. $(12 \cdot 5) \cdot 4$

20. 1, 18

21. 0, 26

22. $8a + 48$

23. $7p - 35$

24. $90 + 9x$

25. $12 + 6a + 54 = 6a + 66$

Week Two Answers:

26. $4x - 12$; Distributive Property

27. $21x$; Commutative Property of Multiplication and Associative Property of Multiplication

28. 12 square units

29. $P = 4a + 2x$; \$14

30. $\frac{14}{15}$

31. 9.4

32. $7\frac{23}{36}$

33. 0.42

34. $2\frac{2}{5}$

35. 6

36. 1.2

37. 29.52

38. about 1

39. About $\frac{1}{2}$

40. $4 \times 10 = 40$

41. $68 \div 2 = 34$

43. about 12 in.²; underestimate

44. $\frac{3}{5}$

45. $3\frac{9}{25}$

46. $\frac{13}{40}$

47. 0.6

48. 0.375

49. 1.24

50. 2 c of flour, $\frac{2}{3}$ c of sugar, $1\frac{1}{3}$ c of chocolate chips

Week Three Answers:

51. 42

52. 4

53. 25

54. the eighteen-pack (\$0.30 per juice box compared to \$0.35 per juice box in the twelve-pack)

55. 37.5%

56. 76%

57. 120%

58. 325%

59. 25%

60. 126%

61. 166.6%

62. 3.2%

63. Chris, Mary Beth, and Allison are all in agreement:

$$14.6\% = \frac{292}{2000} = 0.146.$$

64. $\frac{5}{12}$, 42%, 0.425

65. \$17.50

66. $\frac{2}{3}$

67. about 4 hours, 20 minutes

68. mean: 7; median: 6; mode: 6; range: 9

69. No; you also need to know how many she has shot so far. There is not enough information to answer the question.

70. 52.66 m^2

71. 768 sq. ft

72. 273 sq. mm.

73. 322 sq. cm.

74. 294.5 sq. cm

75. $8x - 25$

WEEK FOUR ANSWERS:

76. 150 ft^2

77. 6 by 20, 4 by 30, 8 by 15, 5 by 24, 3 by 40, 2 by 60, 1 by 120

78. $s = \frac{1}{4}$

79. $c = 3$

80. $(4 \cdot 6)w = 96; 4 \text{ cm}$

81. $t < 7$

82. $m \geq -3$

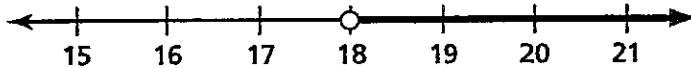
83. $2n + 6$

84. $3m - 7$

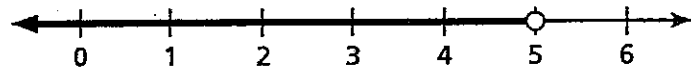
85. $25 - w$

86. 2×6

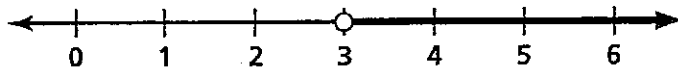
87. $b > 18$



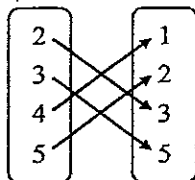
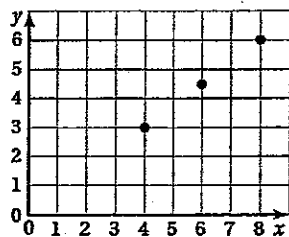
88. $a < 5$



89. $t > 3$



90. $50 < 15 + 0.10x$; if you use more than 350 minutes on the first plan

91. **Input** **Output**92. **a.**

b. $y = \frac{3}{4}x$

c. \$9

93. $4x + 12$; Distributive Property

94. $14x$; Commutative Property of Multiplication and Associative Property of Multiplication

95. 27 square units 96. $P = 3.50a + 2c$; \$13 97. $\frac{2}{7}$ 98. 7.44

99. $14\frac{7}{8}$

100. 1.44

WEEK FIVE ANSWERS:

101. $1\frac{2}{7}$ 102. $36\frac{4}{5}$ 103. 2.4 104. 4.6

105. \$0.35 106. \$32.10 107. 3.245 in.

108. About 30 sq. in; overestimate 109. $\frac{3}{10}$ 110. $4\frac{17}{25}$

111. $\frac{213}{250}$ 112. 0.8 113. 0.1875 114. 2.25

115. $2\frac{1}{3}$ c of flour, $\frac{2}{3}$ c of sugar, $1\frac{5}{6}$ c of chocolate chips

116. 36 117. 3 118. 5

119. The 18-pk (\$0.305 per juice box compared to \$0.325 per juice box in the 12-pk)

120. 62.5% 121. 4% 122. 420% 123. 133.3%

124. .7%

125. Chris, Mary Beth, and Allison are all in agreement: $14.6\% = \frac{292}{2000} = 0.146$

WEEK SIX ANSWERS:

126. $\frac{7}{6}$, 1.17, 120% 127. \$17.85 128. $\frac{4}{3}$ 129. 5 hours, 12 minutes

130. mean: 9.9; median: 9.5; mode: 9; range: 4

131. No, you also need to know how many she has shot so far. There is not enough information to answer the question.

132. 38.81 sq. m

133. 1456 sq. ft.

134. $s = 16$

135. $c = 8$

136. Solution

137. Not a solution

138. Not a solution

139. Solution

140. a. $d = 6h$ b. $d = 12$ miles

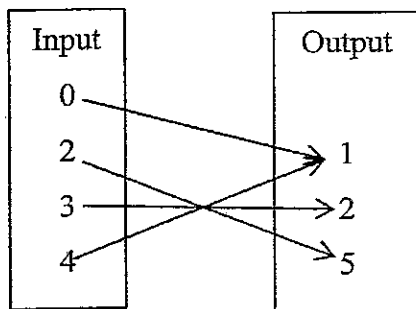
141. $(5 \times 6)w = 80$; $2\frac{2}{3}$ cm

142. $w < 5.5$

143. $m \geq 7$

144. $42.50 < 12.50 + 0.15x$; if you use more than 200 minutes on the first plan

145.

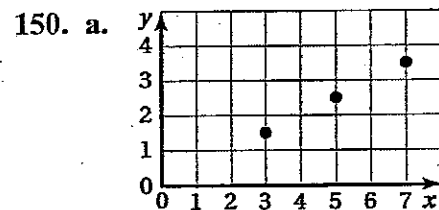


146. $y = x + 10$

147. $y = 3x$

148. $y = x - 8$

149. $y = 2x$



b. $y = 0.5x$

c. \$6

WEEK SEVEN ANSWERS:

151. (4, 0)

152. (2, 2)

153. (0, 1)

154. (-1, 4)

155. (-3, 2)

156. (-2, 0)

157. (-4, -4)

158. (-3, -2)

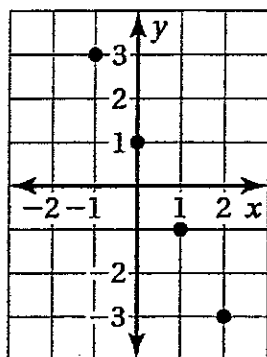
159. (0, -4)

160. (1, -3)

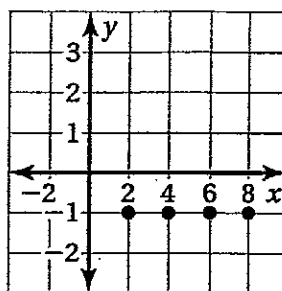
161. (2, -2)

162. (3, -4)

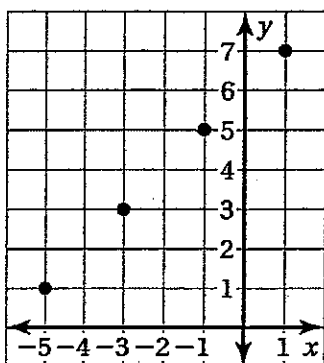
163. The points lie on a line.



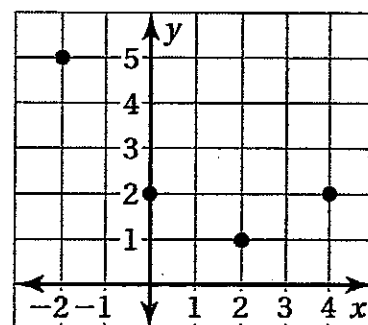
164. The points lie on a line.



165. The points lie on a line.



166. The points do not lie on a line.



167. 0

168. -8

169. 1

170. 3

171. -1

172. 4

173. 75 cm

174. 1 ft

175. The volume is multiplied by 8.

WEEK EIGHT ANSWERS:

176. 34 yd

177. 24 in.

178. 60 mm

179. 48 in²

180. about 178.5 mm²

181. 402 ft²

182. 60 ft

183. 75

184. 168 m

185. 1008 ft

186. \$7.50

187. 60

188. 4

189. 10

190. 180

191. 150 fish

192. 45 pounds

193. <

194. =

195. a. 16 weeks

b. 4 weeks; *Sample answer:* Divide the difference in prices by \$15.50.