

summer packet for incoming 7th grade

Name: _____

Date: _____

1. Which does *not* equal 452?
 - A. 3 hundreds, 5 tens, 12 ones
 - B. 3 hundreds, 15 tens, 2 ones
 - C. 4 hundreds, 5 tens, 2 ones
 - D. 4 hundreds, 4 tens, 12 ones

2. Which of these is another way to write 3280?
 - A. 3 hundreds, 28 ones
 - B. 3 hundreds, 28 tens
 - C. 3 thousands, 28 ones
 - D. 3 thousands, 28 tens

3. The school library has 620 fiction books and 379 nonfiction books. How many more fiction books than nonfiction books are in the library?

4. Barb's basketball team scored 54 points. Joe's team scored 38 points. How many more points did Barb's team score than Joe's team?

5. A bakery sold 512 cakes and 263 pies in a month. How many more cakes than pies were sold during the month?

6. A store sold 6,152 blue shirts and 2,807 purple shirts during a sale. How many more blue shirts than purple shirts were sold during the sale?

7. Tony had \$20. He paid \$8 for a ticket to a baseball game. At the game, he bought a hot dog for \$3. What amount of money did Tony have then?

8. Mr. Chang bought 36 desks for each classroom in his school. There are 18 classrooms in his school. What is the total number of desks he bought?

9. There are 36 pieces of candy in 1 box. How many pieces of candy are in 50 boxes?

10. A printing company packed 925 books into 25 boxes. Each box contained the same number of books. What was the number of books packed in each box?

11. A group is planning to go to an amusement park.

- There will be 237 people going on the trip.
- Only 46 people can ride the rollercoaster at one time.
- No one will be allowed a second ride until everyone has had a turn.

What is the least number of rollercoaster rides needed for everyone to have a turn?

12. Four children earned \$50 from selling cookies. They decided to divide the money equally. How much money did each of the four children get?

13. At a school, there are 704 desks to place into 22 classrooms. If the same number of desks is placed in each classroom, how many desks will be in each room?

14. The students in a class made a total of 112 cookies. They divided the cookies equally into 8 bags. How many cookies were in each bag?

15. Max the monkey loves bananas. Molly, his trainer, has 24 bananas. If she gives Max four bananas each day, how many days will the bananas last?

16. Cali had 65 pounds of sand. The sand was measured equally into bags. Each bag held 10 pounds of sand. How many full bags of sand did Cali have?

17. Mr. Brown bought 6 towels. All the towels were the same price. The total cost was \$84. How much money did each towel cost?

18. Ms. Patterson divided the students in her class into groups of 6 for a classroom activity. There were 2 students left over. Which of the following could be the number of students in Ms. Patterson's class?

- A. 11 B. 20 C. 36 D. 45

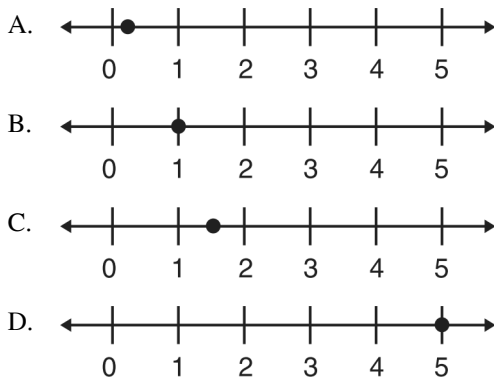
19. Matthew wants to put 75 photos in a photo album. A full page can hold 6 photos.

What is the total number of photos that Matthew will have **left over** after he fills all of the pages that he can with 6 photos on each page?

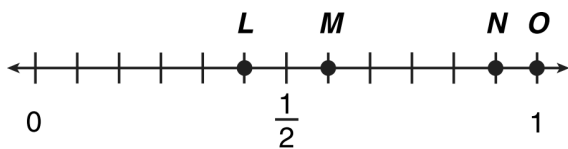
20. José, Phillip, and Timothy shared a bag of marbles. The bag contained 272 marbles. How many marbles were left over after the friends shared them equally?

21. Miss Conrad ordered a total of 60 felt-tip pens for 9 students in the math club. Each student received the same number of pens. How many pens did each student receive, and how many pens were left over?

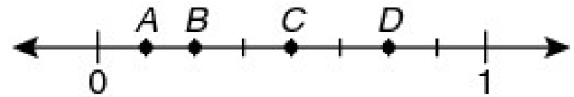
22. Which number line appears to show the dot placed at $\frac{1}{5}$?



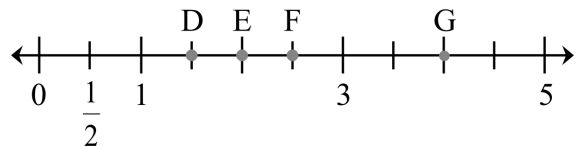
23. Which point is located at $\frac{7}{12}$ on the number line below?



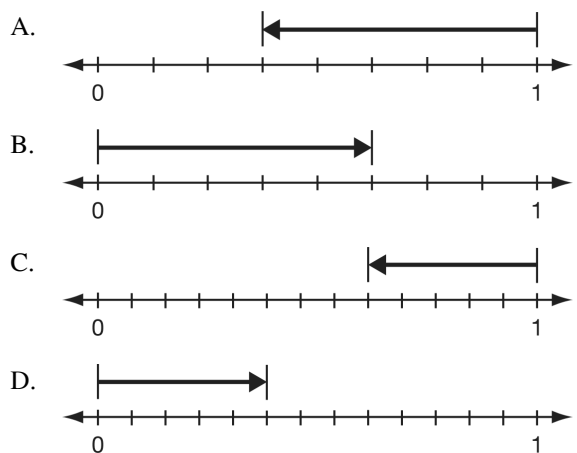
24. Which point shows the fraction $\frac{1}{4}$ on the number line?



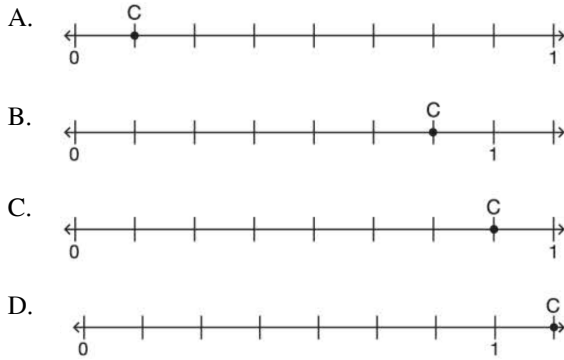
25. Which letter appears to mark $2\frac{1}{2}$ on this number line?



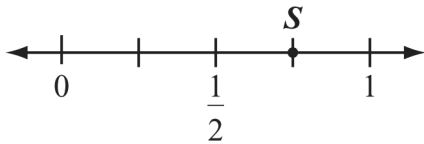
26. Cassi drew an arrow above a number line. The arrow is $\frac{5}{8}$ of a unit long. She drew the arrow so it is pointing at the fraction $\frac{5}{8}$. Which arrow could be the one Cassi drew?



27. Which number line has point C marked at $\frac{7}{8}$?



28. Point S is shown on the number line below.



Which fraction best names point S on the number line?

- A. $\frac{1}{4}$ B. $\frac{2}{3}$ C. $\frac{3}{4}$ D. $\frac{3}{2}$

29. Clint's teacher asked him to write two fractions that are equivalent to $\frac{2}{5}$. If Clint did this problem correctly, which answer did Clint write?

- A. $\frac{2}{10}$ and $\frac{4}{10}$ B. $\frac{4}{10}$ and $\frac{6}{10}$
 C. $\frac{2}{10}$ and $\frac{20}{100}$ D. $\frac{4}{10}$ and $\frac{40}{100}$

30. Which fraction is equivalent to $\frac{3}{4}$?

- A. $\frac{1}{4}$ B. $\frac{6}{8}$ C. $\frac{5}{6}$ D. $\frac{7}{8}$

31. Megan bought a package of 10 erasers. If 3 of the erasers are pink, what fraction of the number of erasers in this package is pink?

32. Johannah collects posters. She has 3 animal posters, 4 posters of sports teams, and 2 posters of musical bands. What fraction of her posters is of sports teams?

33. Cory has 2 red crayons and 1 blue crayon.

What fraction of Cory's crayons is red?

34. A basket contains the apples listed below.

- 9 red apples
- 6 yellow apples
- 5 green apples

What fraction of the apples in the basket are yellow?

35. In Linda's family, 5 of the 15 members don't like chocolate. Which is another way to describe this?
- A. $\frac{1}{5}$ of Linda's family doesn't like chocolate.
B. $\frac{1}{3}$ of Linda's family doesn't like chocolate.
C. $\frac{3}{5}$ of Linda's family doesn't like chocolate.
D. $\frac{3}{15}$ of Linda's family doesn't like chocolate.

36. Gloria and her 3 friends will share a pizza equally. Which fraction shows the portion of the pizza each person will receive?

- A. $\frac{1}{4}$ B. $\frac{1}{3}$ C. $\frac{3}{8}$ D. $\frac{3}{4}$

37. One roll of packaging tape has 55 yards of tape. A shipping company uses 3 yards of tape to package each of its large-sized boxes. How many large-sized boxes can the company package with one roll of tape?

38. Last month Ellen was in school for 116 hours. Each school day is 6 hours long. How many school days was Ellen in school last month?

39. Which expression represents the mixed number $11\frac{9}{14}$?

- A. $11 \times 9 + 14$ B. $119 \div 14$
C. $11 + (9 \div 14)$ D. $11 \times 9 \div 14$

40. Students in a P.E. class run a 12-mile relay race. Each of the 32 students in the class runs the same distance. What distance does each student run?

41. A hardware store sells boxes of nails. The nails are $\frac{5}{8}$, $\frac{9}{16}$, $\frac{3}{4}$, and $\frac{1}{2}$ inch in length. If the boxes of nails are to be arranged by nail size from least to greatest, which of the following is the correct order?

- A. $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{9}{16}$ B. $\frac{1}{2}$, $\frac{9}{16}$, $\frac{5}{8}$, $\frac{3}{4}$
C. $\frac{3}{4}$, $\frac{5}{8}$, $\frac{9}{16}$, $\frac{1}{2}$ D. $\frac{3}{4}$, $\frac{9}{16}$, $\frac{5}{8}$, $\frac{1}{2}$

42. Which list shows the fractions in order from *least* to *greatest*?

- A. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ B. $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{4}$
C. $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$ D. $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{3}$

43. There are two cakes on the counter that are the same size. The first cake has $\frac{1}{2}$ of it left. The second cake has $\frac{5}{12}$ left. Which cake has more left?

44. A pizza was cut into 8 equal pieces. Katie ate 2 pieces and Emily ate 1 piece. What fraction of the pizza was left?

45. Find the answer to the problem below.

$$\frac{1}{3} \times 2127 =$$

46. $\frac{1}{5} \cdot \frac{1}{6} =$

47. Find the answer to the problem below.

$$\frac{4}{9} + \frac{1}{12} =$$

48. $\frac{1}{4} + \frac{2}{4} =$

49. Find the answer to the problem below.

$$\frac{7}{8} - \frac{3}{5} =$$

50. What is $\frac{3}{4} - \frac{1}{6}$?

51. Subtract the following fractions:

$$\frac{5}{8} - \frac{3}{16}$$

52. It takes Jim $2\frac{3}{4}$ hours to paint a deck. It takes Norman $3\frac{1}{8}$ hours to paint the same deck at another location. How much faster is Jim?

53. What is the solution to the following problem, in lowest terms?

$$\frac{1}{8} \times \frac{5}{7} =$$

54. $\frac{3}{4} \times 3 =$

55. Calculate the product:

$$\frac{3}{4} \times 7$$

56. What is the value of the expression below?

$$2\frac{1}{4} \times 3\frac{1}{3}$$

57. Multiply: $3\frac{1}{2} \times 4\frac{2}{3}$

58. You may not use a calculator for this question.

Multiply: $\frac{7}{8} \times 1\frac{2}{3}$

59. What is the solution to the problem below, in lowest terms?

$$\frac{8}{9} \div \frac{2}{7} =$$

60. What is the value of the expression?

$$\frac{3}{7} \div \frac{3}{4}$$

61. $12 \div \frac{3}{4}$

62. Which of the following is equivalent to the expression below?

$$3\frac{2}{3} \div \frac{2}{3}$$

- A. $5\frac{1}{2}$ B. 4 C. 3 D. $2\frac{4}{9}$

63. What is the value of the expression below?

$$\frac{3}{4} \div 12$$

64. Divide:

$$\frac{3}{4} \div \frac{7}{8}$$

65. Solve:

$$3\frac{5}{9} \div 2\frac{2}{3}$$

66. Divide:

$$\frac{1}{6} \div 7$$

67. Jason made 3 quarts of corn chowder. He divided it into serving sizes of $1\frac{1}{2}$ cups each. How many $1\frac{1}{2}$ -cup servings can be made from 3 quarts of chowder?

68. A teacher divides a whole class into groups to work on a class project. Each group has one-sixth of all the children in the class. How many groups are there?

69. Jessica needs $8\frac{1}{4}$ cups of raisins to make 2 fruitcakes. A 12 oz box of raisins contains $2\frac{1}{3}$ cups. How many boxes of raisins should Jessica buy?

70. How much rice will each person get if 3 people share $\frac{1}{2}$ lb of rice equally?

71. On Monday the rain gauge in Jerome's backyard contained 3.04 inches of rainwater.

How is 3.04 written in words?

72. Lauren put 12.015 gallons of gas in her car. What is 12.015 written in words?

73. Which of the following is another way to write the numeral 1,432.08?

- A. One thousand four hundred thirty-two and eight tenths
- B. One thousand four hundred twenty-three and eight tenths
- C. One thousand three hundred forty-two and eight hundredths
- D. One thousand four hundred thirty-two and eight hundredths

74. Sanjay recorded the density of various substances at 25° Celsius, as shown in the table below.

Density of Substances at 25° C

Substance	Density (grams / cm^3)
aluminum	2.70
gold	19.3
water	0.997
copper	8.92

He then wrote the densities in order, from least to greatest. What is the correct order of the given numbers, from least to greatest?

75. Which list is in order from *least to greatest*?

- A. 0.12 0.21 0.13 B. 0.212 0.30 0.31
- C. 0.31 0.3 0.212 D. 0.13 0.21 0.12

76. Which list is in order from *greatest* to *least*?

- A. 0.87, 0.75, 1.25, 0.15
- B. 1.20, 1.00, 0.91, 0.95
- C. 1.52, 1.05, 0.84, 0.06
- D. 0.08, 0.79, 1.02, 1.19

77. Find the difference.

$$\begin{array}{r} \$83.69 \\ - \$76.94 \\ \hline \end{array}$$

78. What is the solution to the equation?

$$7400.05 - 526.175 =$$

79. Brian earns \$5.15 per hour at his job. His older brother earns \$9.00 per hour at his job. How much more does Brian's older brother earn per hour?

80. Brenda wanted to see how much water evaporated from an open container. She measured 14.386 liters in the container at the beginning of the day and 13.987 liters 12 hours later. How many liters evaporated during those 12 hours?

81. Reggie compared the prices of two radios. The table below shows the prices.

Brand	Cost
A	\$31.47
B	\$34.71

How much more does Brand *B* cost than Brand *A*?

82. Tony had a rope 8.35 meters long. He cut off 2.6 meters. How long was the piece of rope that was left?

83. Maria has \$7.50 to buy lunch. If she buys a turkey sandwich that costs \$2.75, how much money will she have left?

$$\begin{array}{r} 84. \quad 7.2 \\ \times 3.3 \\ \hline \end{array}$$

$$\begin{array}{r} 85. \quad 39.06 \\ \times 0.3 \\ \hline \end{array}$$

86. Solve:

$$463 \times 0.5$$

87. $(0.5)(0.5)(0.5)$ is equal to which of the following?

- A. 0.000125 B. 0.00125
C. 0.125 D. 1.25

88. Multiply.

$$2.174 \times 100$$

89. Kirima bought 4 jackets for her children. Each jacket cost \$37.19 with tax added. What was the total cost of the 4 jackets?

90. Walter bought 2.5 yards of fabric at \$3.70 per yard. How much did Walter pay for the fabric?

91. Robert wants to buy 3 notebooks that cost \$1.25 each. How much do the notebooks cost all together, without tax?

92. The school office ordered 24 boxes of pens. Their total cost was \$191.52. What was the cost of 1 box of pens?

93. A delivery person delivered $\frac{2}{3}$ of her packages before lunch. She delivered $\frac{1}{4}$ of those packages to the Lamont Office Building. What fraction of the total number of packages was delivered to the Lamont Office Building?

94. At Greg's party, $\frac{2}{3}$ of the guests wanted pizza. Of those guests, $\frac{4}{5}$ wanted cheese pizza. What fraction of Greg's guests wanted cheese pizza?

95. Ben used $1\frac{1}{10}$ ounces of beads from a jar that originally had $4\frac{6}{7}$ ounces of beads. He then put $3\frac{2}{7}$ ounces of new beads into the jar. Ben uses the expression below to find out how many ounces of beads are now in the jar.

$$4\frac{6}{7} - 1\frac{1}{10} + 3\frac{2}{7}$$

Which is the *best* estimate of how many ounces of beads are now in the jar?

- A. 5 ounces B. 6 ounces
C. 7 ounces D. 8 ounces

96. The temperature in Glendale was 72°F at 7:00 a.m. By noon, the temperature rose to 86°F . Three hours later, the temperature rose another 13°F . At 7:00 p.m. the temperature was 6°F more than it was at 7:00 a.m. Which expression can be used to find the temperature at 7:00 p.m.?

97. What is the solution to the equation?

$$3 \times 10 + (9 \times 2) =$$

98. What is the solution to the equation?

$$5 + 9 \times 21 =$$

99. What is the simplified form of the expression below?

$$4 \times 5 + 2 \div 2$$

100. $54 - 36 \div 9 =$

101. What is the value of this expression?

$$2 + 3 \times 6 - 7$$

102. Mr. Wade wrote an expression on the board.

$$37 - 3 \times 8 + 5 =$$

Which operation should be completed first to find the value of the expression?

A. $37 - 3$

B. 3×8

C. $8 + 5$

D. $37 + 5$

103. What is the sum of $-15 + 18$?

104. What is the product of $3(-16)$?

105. Which expression has a value of 18?

A. $[(3 \times 4) - (2 \times 5)] + 1$

B. $3 + 4 + [(2 \times 5) + 1]$

C. $3 + [(4 \times 2) + (5 \times 1)]$

D. $3 \times [(4 \times 2) - 5] - 1$

106. David's teacher asked him to solve the problem shown below.

$$(-125 + 175) + (-125 + 165) + 110$$

David's answer of 190 is incorrect. What is the correct answer?

107. What is the value of the expression below?

$$-3(-4)$$

108. Which expression has a value of -3 ?

109. What is the solution to the equation?

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

110. What is the value of the expression?

$$|-3 + (-9)|$$

111. What is the value of the expression below?

$$5 - |4| + |8 - 10|$$

112. What is the value of the expression below?

$$|-2| - |4| + |3 - 10|$$

113. What is the value of the expression below?

$$-3|6 - 10| + 4$$

114. Order the numbers from greatest to least:

$$0.10; 99,989; 6.281; 9.0987$$

115. Which list is given in order from least to greatest?

A. 001, .292, .034, .010

B. 2.0, 0.303, 4.57, 56.7

C. $\frac{3}{4}$, $\frac{7}{8}$, $\frac{12}{28}$, $\frac{17}{100}$

D. $\frac{1}{10}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{7}{8}$

116. Which list contains only integers?

- A. .8, 1.4, 7.2, 19.3, 27.8
- B. -3, -2, 0, 8, 17
- C. -2, -1.8, 8, 15, 101
- D. $\frac{1}{2}$, $\frac{4}{5}$, $\frac{8}{9}$, $\frac{11}{15}$, $\frac{23}{40}$

117. Simplify the expression.

$$\frac{1}{8} + (-\frac{1}{2})^3 - (\frac{1}{4})^2$$

118. $(\frac{2}{3})^4 =$

119. Which statement is true?

- A. $7 < \sqrt{65} < 8$
- B. $4 < \sqrt{13} < 5$
- C. $6 < \sqrt{33} < 7$
- D. $9 < \sqrt{91} < 10$

120. The square root of 150 is between—

- A. 10 and 11.
- B. 11 and 12.
- C. 12 and 13.
- D. 13 and 14.

121. The value of $\sqrt{85}$ is between which two integers?

- A. 8 and 9
- B. 9 and 10
- C. 41 and 42
- D. 42 and 43

122. Write the following in expanded form.

$$2^4 = \underline{\hspace{2cm}}$$

123. $5^3 = \underline{\hspace{2cm}}$

124. Write the following in expanded form, then solve.

$$9^2 = \underline{\hspace{2cm}}$$

125. $3 \times 3 \times 3 \times 3 \times 5 \times 5 \times 2 =$

126. Which of the following is equivalent to the expression below?

$$x^6 \cdot x^2$$

- A. x^3 B. x^4 C. x^8 D. x^{12}

127. Which of these is equivalent to the expression below?

$$5^a \div 5^b$$

- A. 5^{a-b} B. 5^{a+b} C. $5^{a \div b}$ D. $5^{a \times b}$

128. In evaluating the expression $(32 + 8 \times 2)^3 \div 4$, which shows the expression after the first step has been performed?

- A. $(40 \times 2)^3 \div 4$ B. $(32 + 16)^3 \div 4$
 C. $(32 + 8 \times 8) \div 4$ D. $(32 + 8 \times 2)$

129. Which expression shows the first step in finding the value of $6 + 3(5 - 2)^2$?

- A. $6 + 3(3)^2$ B. $9(5 - 2)^2$
 C. $6 + (15 - 2)^2$ D. $6 + 3(25 - 4)$

130. There are 20 teachers and 705 students in Corey's school. What is the ratio of teachers to students?

131. The table below shows the 2009 population of Tennessee was represented by different age groups.

Tennessee Population in 2009

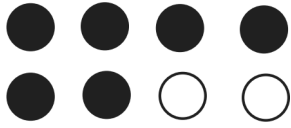
Age Group	Percent of Total Population
0 to 4	7
5 to 18	17
19 to 64	63
65 and over	13

Based on this information, which ratio represents the percent of the total population who were in the 65 and over age group to the percent of the total population who were in the 0 to 18 age group in Tennessee in 2009?

- A. 1:8 B. 1:5 C. 13:24 D. 13:17

132. Mr. Smith asked his students whether they prefer to go to a museum or the zoo for a field trip. He found that 35% of the students prefer to go to a museum, 45% prefer to go to the zoo, and the rest have no preference. What is the ratio of students who have no preference to the students who prefer to go to the museum?

133. In a small group of ducks, there are 6 males and 2 females. To model this, Jake drew the diagram below.



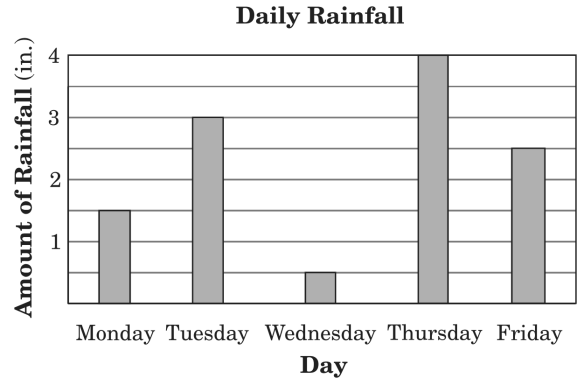
Which ratio of males to females is an equivalent ratio to the model Jake drew?

- A. 2:8 B. 8:6 C. 4:12 D. 12:4

134. Ms. Hugon wrote thank-you cards. She mailed $\frac{4}{9}$ of the cards on Monday and $\frac{2}{9}$ of the cards on Tuesday. She mailed all of the remaining cards on Wednesday. What fraction of the cards did Ms. Hugon mail on Wednesday?

135. The fifth-grade classes are helping with fall cleanup by raking yards. At noon, 8 classes have finished raking and 7 classes are still raking. What is the ratio of classes finished raking to classes still raking?

136. What is the ratio of the amount of rainfall on Wednesday to the amount of rainfall on Friday?



137. There are 34 carrots and 2 onions in a basket. What is the ratio of onions to total vegetables in the basket?

138. A farmer has 6 times as many Holstein as Jersey cows. What proportion of the total number of cows are Holsteins?

139. A drink contains 20% cranberry juice and the rest is apple juice.

What is the ratio of cranberry juice to apple juice?

140. Give the unit rate of the following:
If 15 lbs. of chicken cost \$56.85, what is the cost of one pound?
141. If Mitch types 275 words in 5 minutes, how many words can he type in one minute?
142. A car made a trip of 352 miles on 16.8 gallons of gasoline. Which is closest to the number of miles per gallon the car got on that trip?
- A. 10 mpg B. 20 mpg
C. 30 mpg D. 40 mpg
143. Oscar walked at the same rate for 10.5 miles. He completed his walk in 3 hours. What was Oscar's rate, in miles per hour, during his walk?
144. A factory uses 220,000 gallons of water to produce 2 tons of steel. How many gallons of water are needed to produce 1 pound of steel?
145. Gary can hike 2.5 miles in 30 minutes. At that rate, how long will it take him to hike the 8 miles to Chena Lake?
146. The ratio of fishing boats to sailboats in a bay is 8 : 3. There are a total of 24 sailboats in the bay. How many fishing boats are in the bay?
147. Ben types at a rate of 50 words per minute. He typed 4 pages with 250 words on each page without stopping. How many minutes did it take Ben to type the pages?
148. Set up a ratio for the following. Simplify if possible, (use fraction form).
45 sec. to 1 minute
149. A recipe for 1 batch of cookies requires of a $\frac{2}{3}$ cup of cooking oil. How many cups of cooking oil would be required for 4 batches of cookies?

150. A recipe calls for $\frac{2}{3}$ cup of butter to make $2\frac{1}{2}$ cups of sauce

What would be the amount of butter needed to make 10 cups of sauce?

151. A recipe calls for $\frac{3}{4}$ teaspoon of butter for every 2 cups of milk. If you increase the recipe to use 3 cups of milk, how many teaspoons of butter are needed?

152. Solve the following proportion:

$$\frac{12}{25} = \frac{x}{88}$$

153. $\frac{15}{k} = \frac{6}{22}$

154. If $\frac{10.3}{5.62} = \frac{n}{4.78}$, then, of the following, which is closest to n ?

A. 2.61 B. 3.83 C. 8.76 D. 8.82

155. Beth bought two new tires for her race car. Each tire originally cost \$74.95. She received a 15% discount.

How much did she pay for her two new tires?

156. Marcia saw a coat that originally cost \$40. She bought it on sale for 15% off the original price. How much did Marcia pay for the coat?

157. A pair of jeans regularly sells for \$24.00. They are on sale for 25% off. What is the sale price of the jeans?

158. What is 40% of 250?

159. What is 60% of 30?

160. The cost of an afternoon movie ticket was \$4.00. This year an afternoon movie ticket costs \$5.00. What is the percent increase of the ticket from last year to this year?

161. The weekly sales of a magazine increased from 500,000 to 600,000. By what percentage did the magazine sales increase?

162. Choose the number sentence that means “2 more than 2 times a number.”

163. Ada charges a flat rate of \$75 for staining a deck plus an additional \$6 for each hour she works. Which expression below *best* describes the total amount of money Ada charges for staining a deck in x hours?

- A. $75 + 6x$ B. $75 \times 6x$
C. $75x + 6$ D. $81x$

164. Kelly ran 3 miles fewer than twice as far as Jim. Jim ran m miles. Which expression represents how far Kelly ran?

- A. $3 - 2m$ B. $2m - 3$
C. $3m - 2$ D. $2(m - 3)$

165. What is the value of the following when $N = 8$?

$$23 \times N = ?$$

166. What is the value of the following when $B = 8$

$$72 \div B$$

167. What is the value of the expression below when $n = \frac{6}{7}$?

$n - \frac{3}{7}$

168. What is the value of $(3 + 5^2) \div 4 - (x + 1)$ when $x = 7$?

169. Erica volunteered to go to the board to show how to correctly add $(x - 1)$ and $3(x + 2)$.

What should Erica's answer be?

170. Apply properties of operations to $y + y + y$.

171. What is the simplified form of this expression?

$$4(2x - 5y) - 3x$$

172. If $t = 11$ and $s = 5$, evaluate the following expression: $3t - 5s$

173. Evaluate this expression if $x = 7$ and $y = 3$: $7y - 2x$

174. Simplify the expression $2x(5 + y)$.

175. Which expression shows $3(x + y)$ in its simplified form?

A. $3xy$

B. $3x + y$

C. $3x + 3y$

D. $3 + x + y$

176. Use the expression below to answer the following question.

$$\frac{(x + 2)(x - 3)}{x}$$

What is the value of the expression when $x = 7$?

177. What is the value of $\frac{x + 4}{x^2 - 4}$ for $x = -2$?

178. A rational expression is shown below.

$$\frac{y^4 - y^3}{6}$$

What is the value of the expression when $y = 3$?

179. Which of the following lists *all* the factors of 56?

A. 1, 4, 6, 7, 8, 9, 16, 56

B. 1, 2, 4, 7, 8, 14, 28, 56

C. 1, 2, 28, 56

D. 1, 56

180. Which list shows all factors of 72?

A. 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

B. 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

C. 1, 2, 3, 4, 8, 9, 18, 24, 36, 72

D. 2, 3, 4, 6, 8, 9, 12, 18, 24, 36

181. Which is the greatest common factor (GCF) of 36 and 78?

A. 4

B. 6

C. 9

D. 13

182. What is the greatest common factor (GCF) of the following numbers?

12, 15, 18, 36

183. What greatest common factor should be used to reduce the fraction $\frac{14}{70}$ to its simplest form?

184. Which of the following is equivalent to $7(5n + 1)$?

- A. $36n$ B. $42n$
C. $35n + 1$ D. $35n + 7$

185. Which of the following is equivalent to the expression?

$$2(3x - 2y) + 4y$$

- A. $6x$ B. $6x + 8y$
C. $6x - 2y$ D. $2xy + 4y$

186. Which expression is equivalent to $3x - 3y$?

- A. $3xy$ B. $3(x - y)$
C. $3x - y$ D. $x - 3y$

187. A package of paper towels has 12 rolls of paper towels in it. Mr. Kelly will put an equal number of rolls of paper towels in 4 rooms. He uses the number sentence below to find the number of rolls of paper towels, t , he will put in each room.

$$12 \div t = 4$$

Which number sentence can Mr. Kelly use to find the number of rolls of paper towels, t , he will put in each room?

- A. $4 \div 12 = t$ B. $4 - t = 12$
C. $4 + 12 = t$ D. $4 \times t = 12$

188. If $h - 6 = 10$, which of the following is true?

- A. $h = 10 + 6$ B. $h = 10 - 6$
C. $h = 10 \times 6$ D. $h = 10 \div 6$

189. Solve each of the unknowns in the equations below:

$$4 \cdot n = 672$$

190. Solve each of the unknowns in the equations below:

$$x - 76 = 102$$

191. Choose the correct solution for the equation:
 $5x + 8 = 43$

192. Solve:

$$3x > 9$$

193. Look at the inequality below.

$$-2x \leq 6$$

Which of these *best* describes the solution of this inequality?

- A. $x \geq -3$ B. $x \leq -3$
C. $x \geq 3$ D. $x \leq 3$

194. Simplify.

$$(x^2 - 3x + 1) - (x^2 + 2x + 7)$$

195. The sum of two binomials is $5x^2 - 6x$. If one of the binomials is $3x^2 - 2x$, what is the other binomial?

196. Which of the following is equivalent to the expression below?

$$(3x + 6y) + (2x - y)$$

- A. $5x - y$ B. $5x + 7y$
C. $6x - 6y$ D. $5x + 5y$

197. Combine Like Terms:

$$7w^4 + 9w^4$$

198. $10x^4 + 6x + 7y^2 - 4x^4 + 3x + 9x$

199. Multiply:

$$2x(3x + 1)$$

200. Simplify: $-2xy(-3xy^2 + 4x^2y)$

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- | | |
|--|--|
| <p>1.
 Answer: A
 Points: 1</p> <p>2.
 Answer: D
 Objective: MA 3.N.1
 Points: 1</p> <p>3.
 Answer: 241 books
 Points: 1</p> <p>4.
 Answer: 16
 Points: 1</p> <p>5.
 Answer: 249 cakes
 Points: 1</p> <p>6.
 Answer: 3,345 shirts
 Points: 1</p> <p>7.
 Answer: \$9
 Objective: 3.NS.2.8
 Points: 1</p> <p>8.
 Answer: 648 desks
 Points: 1</p> <p>9.
 Answer: 1,800
 Points: 1</p> <p>10.
 Answer: 37 books
 Points: 1</p> <p>11.
 Answer: 6
 Objective: 1-3-3
 Points: 1</p> <p>12.
 Answer: \$12.50
 Objective: 3.NS.3.3
 Points: 1</p> <p>13.
 Answer: 32
 Objective: 5.NS.2.2
 Points: 1</p> | <p>14.
 Answer: 14
 Objective: 4.NS.3.4
 Points: 1</p> <p>15.
 Answer: 6 Days
 Objective: CC 3.OA.3
 Points: 1</p> <p>16.
 Answer: 6
 Objective: CC 3.OA.2
 Points: 1</p> <p>17.
 Answer: \$14
 Objective: CC 3.OA.3
 Points: 1</p> <p>18.
 Answer: B
 Objective: MA 6.N.8
 Points: 1</p> <p>19.
 Answer: 3
 Objective: MA 5.N.9
 Points: 1</p> <p>20.
 Answer: 2
 Objective: 1.16
 Points: 1</p> <p>21.
 Answer: 6 pens each with 6 left over
 Objective: 1.02
 Points: 1</p> <p>22.
 Answer: A
 Objective: 5.NS.1.5
 Points: 1</p> <p>23.
 Answer: <i>M</i>
 Objective: 4.NS.1.9
 Points: 1</p> <p>24.
 Answer: Point B
 Points: 1</p> |
|--|--|

25.
Answer: F
Objective: CC 3.NF.2
Points: 1
26.
Answer: B
Objective: CC 3.NF.2b
Points: 1
27.
Answer: C
Objective: CC 3.NF.2b
Points: 1
28.
Answer: C
Objective: MA 3.N.4
Points: 1
29.
Answer: D
Points: 1
30.
Answer: B
Objective: CC 3.NF.3B
Points: 1
31.
Answer: $\frac{3}{10}$
Objective: 4.NS.1.5
Points: 1
32.
Answer: $\frac{4}{9}$
Objective: MA 6.N.4
Points: 1
33.
Answer: $\frac{2}{3}$
Objective: 1.3
Points: 1
34.
Answer:
Objective: MA 5.N.4
Points: 1
35.
Answer: B
Points: 1
36.
Answer: A
Objective: 1-1-5
Points: 1
37.
Answer: $\frac{55}{3}$ boxes
Objective: CC 5.NF.3
Points: 1
38.
Answer: $\frac{116}{6}$
Objective: CC 5.NF.3
Points: 1
39.
Answer: C
Points: 1
40.
Answer: $\frac{3}{8}$ mile
Points: 1
41.
Answer: B
Points: 1
42.
Answer: C
Objective: 1-1-6
Points: 1
43.
Answer: The first cake.
Objective: CC 4.NF.2
Points: 1
44.
Answer: $\frac{5}{8}$
Points: 1
45.
Answer: 709
Objective: M3.2.4
Points: 1
46.
Answer: $\frac{1}{30}$
Objective: 5.NS.2.5
Points: 1
47.
Answer: $\frac{19}{36}$
Objective: M3.2.3
Points: 1
48.
Answer: $\frac{3}{4}$
Objective: 3.NS.3.2
Points: 1
49.
Answer: $\frac{11}{40}$
Objective: M3.2.3
Points: 1
50.
Answer: $\frac{7}{12}$
Objective: 7.NS.2.2
Points: 1

51.
Answer:
Points: 1
52.
Answer: $\frac{3}{8}$ hour
Objective: CC 5.NF.1
Points: 1
53.
Answer: $\frac{5}{56}$
Objective: 1-2-9
Points: 1
54.
Answer: $\frac{9}{4}$
Objective: 7.NS.1.2
Points: 1
55.
Answer: $\frac{21}{4}$ or $5\frac{1}{4}$
Objective: CC 5.NF.5
Points: 1
56.
Answer: $7\frac{1}{2}$
Objective: MA 6.N.14
Points: 1
57.
Answer: $16\frac{1}{3}$
Objective: PA A-F.2.1.2
Points: 1
58.
Answer: $1\frac{11}{24}$
Objective: PA A-N.1.1.3
Points: 1
59.
Answer: $3\frac{1}{9}$
Objective: 1-2-12
Points: 1
60.
Answer: $\frac{4}{7}$
Objective: 1-2-4
Points: 1
61.
Answer: 16
Objective: 5.NS.2.4
Points: 1
62.
Answer: A
Objective: CC 6.NS.1
Points: 1
63.
Answer: $\frac{1}{16}$
Objective: CC 7.NS.2
Points: 1
64.
Answer: $\frac{6}{7}$
Objective: CC 6.NS.1
Points: 1
65.
Answer: $1\frac{1}{3}$
Objective: PA A.3.2.1
Points: 1
66.
Answer: $\frac{1}{42}$
Objective: CC 5.NF.7A
Points: 1
67.
Answer: 8 servings
Points: 1
68.
Answer: 6
Objective: 2.NS.4.3
Points: 1
69.
Answer: Four boxes
Objective: M7.3.2
Points: 1
70.
Answer: $\frac{1}{6}$ lb
Objective: CC 5.NF.7
Points: 1
71.
Answer: Three and four hundredths
Objective: MS 1j1
Points: 1
72.
Answer: Twelve and fifteen thousandths
Objective: II.A
Points: 1
73.
Answer: D
Objective: MS 1j1
Points: 1
74.
Answer: 0.997, 2.70, 8.92, 19.3
Points: 1
75.
Answer: B
Objective: 1-1-16
Points: 1
76.
Answer: C
Objective: 1-1-4
Points: 1

77.
Answer: \$6.75
Objective: M3.2.3
Points: 1

78.
Answer: 6873.875
Objective: 1-2-1
Points: 1

79.
Answer: \$3.85
Points: 1

80.
Answer: 0.399 liter
Points: 1

81.
Answer: \$3.24
Objective: 3.NS.3.3
Points: 1

82.
Answer: 5.75 meters
Objective: 5.NS.2.1
Points: 1

83.
Answer: \$4.75
Objective: 5.NS.2.1
Points: 1

84.
Answer: 23.76
Objective: 5.NS.2.1
Points: 1

85.
Answer: 11.718
Objective: 5.NS.2.1
Points: 1

86.
Answer: 231.5
Points: 1

87.
Answer: C
Objective: MA 8.N.-
Points: 1

88.
Answer: 217.4
Objective: 1.3
Points: 1

89.
Answer: \$148.76
Points: 1

90.
Answer: \$9.25
Points: 1

91.
Answer: \$3.75
Objective: 5.NS.2.1
Points: 1

92.
Answer: \$7.98
Objective: 7.04B
Points: 1

93.
Answer: less than $\frac{1}{4}$
Points: 1

94.
Answer: less than $\frac{2}{3}$
Points: 1

95.
Answer: C
Objective: CC 5.NF.2
Points: 1

96.
Answer: $72 + 6$
Objective: 5-2-3
Points: 1

97.
Answer: 48
Objective: 1-2-6
Points: 1

98.
Answer: 194
Objective: 1-2-5
Points: 1

99.
Answer: 21
Objective: 1-2-15
Points: 1

100.
Answer: 50
Points: 1

101.
Answer: 13
Objective: LA N.4
Points: 1

102.
Answer: B
Objective: 1.17
Points: 1

103.
Answer: 3
Objective: M3.3.3
Points: 1

104.
 Answer: -48
 Objective: M3.3.3
 Points: 1

105.
 Answer: B
 Objective: 1-2-8
 Points: 1

106.
 Answer: 200
 Points: 1

107.
 Answer: 12
 Objective: 1-2-5
 Points: 1

108.
 Answer: $-7 - (-4)$
 Objective: 1-2-1
 Points: 1

109.
 Answer: -8
 Objective: 1-2-1
 Points: 1

110.
 Answer: 12
 Objective: 1-1-4
 Points: 1

111.
 Answer: 3
 Points: 1

112.
 Answer: 5
 Objective: 1-2-3
 Points: 1

113.
 Answer: -8
 Objective: MA 10.N.2
 Points: 1

114.
 Answer: 99,989, 9.0987, 6.281, 0.10
 Objective: M1.2.1
 Points: 1

115.
 Answer: D
 Objective: M1.2.1
 Points: 1

116.
 Answer: B
 Objective: M1.4.1
 Points: 1

117.
 Answer: $-\frac{1}{16}$
 Objective: M3.4.2
 Points: 1

118.
 Answer: $\frac{16}{81}$
 Objective: 7.NS.1.2
 Points: 1

119.
 Answer: D
 Objective: 1-3-3
 Points: 1

120.
 Answer: C
 Objective: 7.NS.2.4
 Points: 1

121.
 Answer: B
 Objective: 7.NS.2.4
 Points: 1

122.
 Answer: $2^x 2^x 2^x$
 Objective: M1.2.4
 Points: 1

123.
 Answer: $5x5x5x$
 Objective: M1.2.4
 Points: 1

124.
 Answer: $9 \times 9, 81$
 Objective: M1.2.4
 Points: 1

125.
 Answer: $2 \times 3^4 \times 5^2$
 Objective: M1.3.1
 Points: 1

126.
 Answer: C
 Objective: CC 8.EE.1
 Points: 1

127.
 Answer: A
 Objective: MS 1f1
 Points: 1

128.
 Answer: B
 Points: 1

129.
 Answer: A
 Points: 1

130.		144.	
Answer:	$\frac{4}{141}$	Answer:	55 gallons
Points:	1	Points:	1
131.		145.	
Answer:	C	Answer:	96 minutes
Objective:	CC 6.RP.1	Objective:	M3.3.6
Points:	1	Points:	1
132.		146.	
Answer:	4 : 7	Answer:	64
Objective:	CC 6.RP.3	Points:	1
Points:	1	147.	
133.		Answer:	20
Answer:	D	Points:	1
Objective:	CC 6.RP.1	148.	
Points:	1	Answer:	$\frac{3}{4}$
134.		Objective:	M3.3.6
Answer:	$\frac{3}{9}$	Points:	1
Objective:	CC 5.NF.2	149.	
Points:	1	Answer:	$2\frac{2}{3}$
135.		Objective:	7.NS.1.2
Answer:	8 : 7	Points:	1
Objective:	CC 6.RP.1	150.	
Points:	1	Answer:	$2\frac{2}{3}$ cups
136.		Points:	1
Answer:	1 : 5	151.	
Points:	1	Answer:	$\frac{9}{8}$ teaspoons
137.		Objective:	CC 7.RP.3
Answer:	1 : 17	Points:	1
Points:	1	152.	
138.		Answer:	$x = 42.24$
Answer:	$\frac{6}{7}$	Objective:	M3.3.6
Points:	1	Points:	1
139.		153.	
Answer:	1 : 4	Answer:	$k = 55$
Points:	1	Objective:	M3.3.6
140.		Points:	1
Answer:	\$3.79/lb	154.	
Objective:	M3.3.6	Answer:	C
Points:	1	Objective:	CC 7.RP.2
141.		Points:	1
Answer:	55 words/minute	155.	
Objective:	M3.3.6	Answer:	\$127.41
Points:	1	Objective:	M3.3.3
142.		Points:	1
Answer:	B	156.	
Points:	1	Answer:	\$34
143.		Points:	1
Answer:	3.5	157.	
Objective:	CC 7.RP.1	Answer:	\$18.00
Points:	1	Objective:	7.NS.1.7
		Points:	1

158.
 Answer: 100
 Objective: 5.NS.1.2
 Points: 1

159.
 Answer: 18
 Objective: 6.NS.1.4
 Points: 1

160.
 Answer: 25%
 Objective: 7.NS.1.6
 Points: 1

161.
 Answer: 20%
 Objective: 7.NS.1.6
 Points: 1

162.
 Answer: $2 + 2n$
 Objective: M4.3.5
 Points: 1

163.
 Answer: A
 Points: 1

164.
 Answer: B
 Points: 1

165.
 Answer: 184
 Objective: 3-3-1
 Points: 1

166.
 Answer: 9
 Objective: 3-3-1
 Points: 1

167.
 Answer: $\frac{3}{7}$
 Objective: 3-3-1
 Points: 1

168.
 Answer: -1
 Objective: 7.AF.1.2
 Points: 1

169.
 Answer: $4x + 5$
 Points: 1

170.
 Answer: 3y
 Objective: CC 6.EE.3
 Points: 1

171.
 Answer: $5x - 20y$
 Objective: LA A-2-H
 Points: 1

172.
 Answer: 8
 Objective: M4.3.5
 Points: 1

173.
 Answer: 7
 Objective: M4.3.5
 Points: 1

174.
 Answer: $10x + 2xy$
 Objective: M1.4.5
 Points: 1

175.
 Answer: C
 Objective: MS 2e1
 Points: 1

176.
 Answer: $\frac{36}{7}$
 Objective: III.B
 Points: 1

177.
 Answer: undefined
 Points: 1

178.
 Answer: 9
 Objective: MA 10.N.2
 Points: 1

179.
 Answer: B
 Objective: 1-1-9
 Points: 1

180.
 Answer: A
 Objective: 1-1-2
 Points: 1

181.
 Answer: B
 Objective: M1.2.6
 Points: 1

182.
 Answer: 3
 Objective: 1-1-2
 Points: 1

183.
 Answer: 14
 Objective: 6.NS.2.4
 Points: 1

184.
Answer: D
Points: 1

185.
Answer: A
Objective: 60501
Points: 1

186.
Answer: B
Objective: 7.AF.1.3
Points: 1

187.
Answer: D
Objective: CC 3.OA.6
Points: 1

188.
Answer: A
Objective: MA 6.P.3
Points: 1

189.
Answer: 168
Objective: M4.2.5
Points: 1

190.
Answer: 178
Objective: M4.2.5
Points: 1

191.
Answer: $x = 7$
Objective: M4.3.5
Points: 1

192.
Answer:
Objective: CC A.REI.3
Points: 1

193.
Answer: A
Objective: 1.2.2
Points: 1

194.
Answer: $-5x - 6$
Objective: 1A.10.0
Points: 1

195.
Answer: $2x^2 - 4x$
Objective: 1A.10.0
Points: 1

196.
Answer: D
Objective: MA 10.P.3
Points: 1

197.
Answer: $16w^4$
Points: 1

198.
Answer: $6x^4 + 18x + 7y^2$
Points: 1

199.
Answer: $6x^2 + 2x$
Points: 1

200.
Answer: $6x^2y^3 - 8x^3y^2$
Objective: 1.02
Points: 1