125. Eight congruent triangles are put together to form an octagon as shown in the picture below.

Find the measure of angle A.

degrees
126. Which one of the rectangles below has an area of 24 square units and a perimeter of 22 units?
A.

B.

C.

D.


Write the letter of the correct choice on the blank to the right.
127. There were five chairs on one side of a rectangular table. Ann, Barb, Cindy, Dawn, and Ellen each sat down on a chair. Ellen sat between Ann and Barb. Cindy sat between Dawn and Ann. Which one of the following statements is true?
A. Cindy sat on the middle chair.
B. Ellen sat on the middle chair.
C. Barb sat on one end.
D. Barb sat between Ellen and Cindy.

Write the letter of the correct choice on the blank to the right.
128. On Genva's birthday, the sun rose 15 hours 17 minutes before it set. The sun set at $8: 52$ p.m. that day. What time did the sun rise on Genva's birthday?
a.m.
129. Sunshine Preschool had a parade. Some students were pulled in 4 -wheeled wagons, some rode bicycles, and the rest rode tricycles. The total number of wagons, bicycles, and tricycles was 24. There were 6 wagons. There were eight times as many tricycles as bicycles. How many wheels were in the parade? wheels
130. A book has its pages numbered beginning with page one. Josh had read exactly one-fourth of the book. He took the page number of the last page he read, multiplied it by the next page number, and got 2970 . How many pages are in the book?
131. A parallelogram has the same perimeter as the triangle below. A ladybug has traveled 3 of the sides of the parallelogram, a total of 20 inches. How much farther does the ladybug need to go to have traveled twice the perimeter of the parallelogram?

12.4 inches
inches
132. Four digits are missing from the subtraction problem below. Find the sum of the four missing digits.

133. Which one of the four fractions below is closest in value to 0.56 ?
A.. $\frac{57}{99}$
B. $\frac{16}{29}$
C. $\frac{21}{37}$
D. $\frac{43}{77}$

Write the letter of the correct choice on the blank to the right.
134. Jenny has five coins in her new piggy bank. Each is either a dime, a nickel, or a quarter. There is at least one of each type of coin, and there are twice as many dimes as nickels. What is the value of the coins in Jenny's bank?
cents
135. Nick created a list of decimal numbers. After the first number on his list, the next number was obtained by adding 1.3 to the previous number. The first five numbers on Nick's list are shown below.

## $\begin{array}{lllll}3.4 & 4.7 & 6.0 & 7.3 & 8.6\end{array}$

What is the sum of the eighth and ninth numbers on Nick's list?
136. Ebony bought a back-to-school jacket. The regular selling price of the jacket was $\$ 45.00$, but she bought it on sale for $15 \%$ off the regular selling price. No sales tax was charged. How much did Ebony pay for the jacket?
\$ $\qquad$
137. Tristan has a favorite two-digit number. Her number is a perfect square number and it is divisible by twelve. What is Tristan's favorite two-digit number?
138. Brandon is going to write 2.625 as an improper fraction in simplest form. What improper fraction should Brandon write?
139. What percent of 45 is 36 ?
140. Which one of the following represents the largest sum of money?
A. two hundred pennies
B. fifty-three nickels
C. twenty-seven dimes
D. eleven quarters

Write the letter of the correct choice on the blank to the right.

At a summer camp, children hang flags on a vertical pole to send signals. The flags are identical in every way except for color. A black flag above a red flag is not the same signal as a red flag above a black flag. Use the information above to answer questions 141 and 142.
141. Britney uses 4 different-colored flags. How many different signals can she send if she uses all 4 flags?
$\qquad$ signals
142. Varty uses 2 red flags and 2 blue flags. How many different signals can he send if he uses all 4 flags?
$\qquad$
Shamir wrote a list of seven whole numbers in ascending order. The first five numbers are shown below.

```
16
```

Use Shamir's list and the following clues to answer questions 143 and 144.

* The mode of the seven numbers is 16 .
* The mean of the seven numbers is 22 .
* The median of the seven numbers is 23 .

143. What is the mean of the two missing numbers?
144. What is the largest possible number in the list of seven numbers?

The pie chart below shows how the city of Happyville allocates its yearly revenues.


Use the information in the chart to answer questions 145-148.
145. What is the measure of the central angle of the sector representing Maintenance? degrees
146. What fraction of the yearly revenues is allocated to Administration? Write the answer in simplest form.
147. The city allocates $\$ 112,000$ for Miscellaneous expenses. How much is allocated yearly for Maintenance?
\$
148. What percent of the yearly revenues is allocated to Administration and Police Protection combined?
percent
149. A marching band lines up in rectangular formation before the start of the St. Patrick's Day parade. They form 12 rows, with 6 band members in each row. How many of the band members are on the outside edges (front, back, and sides) of the rectangular formation?
150. Abe, Bill, Carl, Dan, and Eli got the following scores on an exam: 62, 72, 82, 88, 90

Carl scored ten points higher than Bill. Eli scored higher than Dan but lower than Abe. Dan scored lower than Bill. Who scored 88 points?
151. A 12-fluid ounce can of pop holds approximately 355 ml . Use this information to determine the approximate number of liters in one gallon. Round your answer to the nearest tenth of a liter. Fact: 1 quart = 32 ounces.
$\qquad$ liters
152. Marge has a box of identical cubes, a box of identical marbles, and a box of identical screws. Using a balance scale, Marge finds out that 3 screws and 2 cubes balance 3 marbles and 3 cubes. Also, 2 screws balance 1 cube and 1 marble. How many marbles are needed to balance 1 screw?
$\qquad$ marbles
153. The product of an odd number and an even number is 560 . What is the largest possible value of the odd number?
154. Adam added four consecutive counting numbers together. Which one of the following cannot be the sum?
A. 170
B. 172
C. 174
D. 178
155. Consider the following pictures made of squares. If this pattern continues, how many squares will be needed to draw the tenth picture?


Picture 1


Picture 2


Picture 3
156. What temperature on the Celsius scale would be the same as $68^{\circ}$ ?
A. $10^{\circ} \mathrm{C}$
B. $20^{\circ} \mathrm{C}$
C. $36^{\circ} \mathrm{C}$
D. $42^{\circ} \mathrm{C}$

Fact: Water freezes at $0^{\circ} \mathrm{C}$ or $32^{\circ} \mathrm{F}$ and boils at $100^{\circ} \mathrm{C}$ or $212^{\circ} \mathrm{F}$.
157. The shape to the right is reflected first about the vertical line and then about the horizontal line. Which one of the pictures below shows the result?


Write the letter of the correct choice on the blank to the right.
158. Lilly finished the race 3 minutes 15 seconds after Jennifer. Jennifer finished the race 7 minutes 46 seconds after Morgan. Morgan finished the race 4 minutes 59 seconds before Celia. How much time elapsed between Celia and Lilly finishing the race?
minutes $\qquad$ seconds
159. Manuel had his trophy engraved. It cost a total of $\$ 2.50$ to engrave the first six letters and $\$ 0.15$ for each additional letter. The cost for engraving all the letters on Manuel's trophy was $\$ 5.95$, without sales tax. How many letters were engraved on Manuel's trophy?
letters
160. Malcolm divides one-third by two-fifths. He writes the answer as a fraction in simplest form. What answer should Malcolm write?
161. Thirty percent of sixty is equal to twenty percent of N. Find N.
162. Leslie read many books during her summer vacation. Sixty percent of the books were mysteries and one-third were romance novels. The remaining two books were autobiographies. How many books did Leslie read during her summer vacation? books
163. Emily has a favorite decimal number. When she adds 1.26 to her favorite number and divides this sum by 2, the result is 4.34 What is Emily's favorite decimal number?
164. The figure below is made up of equilateral triangles. What percent of the figure is shaded?

$\qquad$
165. Find $120 \%$ of $\frac{2}{3}$. Write your answer as a fraction in simplest form.
166. The 12 members of the Pep Club held a car and truck wash. They charged $\$ 3.50$ per car and $\$ 5.00$ per truck. They washed 97 vehicles altogether and earned a total of $\$ 432.50$. How many cars did the Pep club members wash?
cars
167. I'm thinking of a two-digit number. It is divisible by both three and five. When I divide my number by seven, I get a remainder of four. What two-digit number am I thinking of?
168. Mike has 12 coins in his pocket. Each is either a nickel, a dime, or a quarter. He has the same number of quarters as dimes. The value of the nickels is the same as the value of the dimes. What is the value of the 12 coins in Mike's pocket?
\$
169. Some of the 28 balls in a bag are red, some are green, and the others are blue. They are all of the same size and shape. When a ball is drawn at random, there is a 25 percent chance that it is blue. There are 12 red balls in the bag. How many green balls are in the bag?
green balls
170. When 19 of Ms. Trim's students took a reading test, the mean score was 75 points. Two more students took the same test the following day. One of them scored 67 points. How many points did the other student score if the class average for all 21 students was still 75 points?
points
The circle graph below displays information on world-wide tea exports for 1987.


For example, the graph shows that 18 percent of the tea exported worldwide was produced in China. Use the information presented in the graph to answer questions 171-173.
171. Find the sum of the measures of the central angles of the sectors labeled Sri Lanka and Other.
172. What percent of the tea exported worldwide was produced in India?
percent
173. The amount of tea exported by China was twice the amount exported by Indonesia. What percent of the tea exported worldwide was produced in Kenya?

The bar graph below shows the steadily increasing average retail cost of prescription drugs.


Use the information in the graph to answer questions 174-176.
174. To compare costs of drugs, Sami decided to express the average retail cost of generic drugs as a fraction of the average retail cost of prescription drugs for each year. In what year was this fraction the smallest?
175. Express the average retail cost of generic prescription drugs in 1996 as a percent of the average retail cost of generic prescription drugs in 2000. percent
176. By what percent did the average retail cost of brand name drugs increase from 1990 to 2000? Round the answer to the nearest percent. percent

The chart below shows how the pharmaceutical industry promoted brand name prescription drugs.

| Year | Method of Promotion |  |  |  | Total Promotional Spending |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Consumer Advertising | Samples | Doctors | Professional Advertising |  |
| 1996 | 1.5 | 4.1 | 3.1 | 0.5 | 9.2 |
| 1998 | 2.1 | 6.1 | 4.0 | 0.5 | 12.7 |
| 2000 | 2.7 | 8.0 | 4.5 | 0.5 | 15.7 |

Note: All amounts are in billions of dollars.
Use the information in the chart to answer questions 177 \& 178.
177. Which one of the four methods of promotion had the greatest percentage increase from 1996 to 2000?
178. By what percent did the total promotional spending increase between 1996 and 2000? Round the answer to the nearest percent.

## percent

179. The Pancake House is open 12 hours each day, 7 days a week. During the first 10 weeks of 2004, the Pancake House served an average of 140 pancakes per hour. The Pancake House makes a profit of 15 cents on each pancake sold. How much profit did the Pancake House make on pancakes during the first 10 weeks of 2004?
\$ $\qquad$
180. If the following numbers were ordered from least to greatest, which number would be third?
A. 3.52168
B. 3.52156
C. 3.5216
D. 3.521538
E. 3.52

Write the letter of the correct choice on the blank to the right.
181. On his first 6 math assignments, Jonah got an average of 12 questions correct. On the next 9 math assignments, Jonah got an average of 16 questions correct. For all 15 assignments, what was Jonah's average number of questions correct? Do not round your answer.
182. In the shape below, the three horizontal line segments are parallel to each other. None of the other line segments are parallel to each other. How many different trapezoids are there in this shape?

trapezoids
183. The units digit is missing in the following four-digit number: 456 $\qquad$
The number is divisible by 11 . What is the unit's digit?
184. Mom, Dad, and Billy are at the dentist's office. There are three empty adjacent chairs in the waiting room. Billy insists on sitting by Mom. How many different ways are there for Mom, Dad, and Billy to sit down on the three chairs? Note: The chairs cannot be moved.

185. Sam built a square fence to surround Bruno's doghouse. The fence measures 20 feet per side. The fence posts are set 5 feet apart. Sam paid $\$ 2.07$ for each fence post. How much did Sam spend on fence posts?
$\qquad$
186. In the magic square below, every row, column, and the 2 main diagonals have the same sum. Find B-A.

| $\frac{1}{2}$ | $\frac{1}{12}$ | $\frac{5}{12}$ |
| :---: | :---: | :---: |
| A | $\frac{1}{3}$ | $\frac{5}{12}$ |
| $\frac{1}{4}$ | B | $\frac{1}{6}$ |

Write your answer as a fraction in simplest form.

