

311. Mel and Jim are in line to buy tickets. There are 5 people in front of Mel. Jim is the sixth person from the back of the line. There are 11 people in between Mel and Jim. How many people are in line to buy tickets?

_____ people

312. Wanda's family took a trip from their home to grandma's ranch. There were 3 rest stops along the way. Rest stop A is 60 miles from their home. Rest stop C is 186 miles from their home. Rest stop B is two-thirds of the way from rest stop A to rest stop C. How far apart are rest stops B and C?

_____ miles

313. Harry Potter has 3 galleons, 12 sickles, and 2 knuts. If Harry changes all his money to knuts, how many knuts will he have? Facts: 1 galleon = 17 sickles 1 sickle = 29 knuts

_____ knuts

314. Sarah has a 6th floor apartment in a building that does not have an elevator. There are 16 stairs between each floor and the entrance to the building is on the first floor. On Tuesday, Sarah left her apartment, went to work, came home from work to put her coat in her apartment, and then went down to the third floor to visit a friend. She went back to her apartment for the rest of the evening. How many stairs up and down did Sarah take in her apartment building on Tuesday?

_____ stairs

315. Billy and Angie were in a bicycle race. Angie completed the race in 123 minutes 9 seconds. Billy completed the race in 2 hours 5 minutes 37 seconds. How many seconds longer did it take Billy to complete the race?

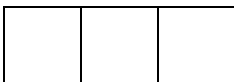
_____ seconds

316. Which one of the statements below is possible?

- A. Water in the refrigerator will freeze if the temperature in the refrigerator is 20° Celsius.
- B. Tanya can run 5 km in 4 minutes
- C. Mrs. Smith's new shoes came in a box that was 8 cm wide, 10 cm long, and 4 cm high.
- D. Megan can drink 355 ml of water in 5 minutes.

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

317. Three squares are placed side by side to form a rectangle as shown in the picture below. The perimeter of the resulting rectangle is 84 cm. What is the area of the rectangle? Do not round your answer.



_____ square cm

318. Mandy has 2 gallons of ice cream to serve at a picnic. How many more people can Mandy serve if she serves $\frac{1}{2}$ cup of ice cream to each person instead of $\frac{2}{3}$ cup?

Facts: 1 gallon = 4 quarts 1 quart = 2 pints 1 pint = 2 cups

_____ people

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 319. To his favorite number, Henry added three and two tenths and then subtracted five and four hundredths. Which of these operations would have given him the same result?

- A. subtracting 1.84 from his favorite number
- B. adding 1.84 to his favorite number
- C. subtracting 2.2 from his favorite number
- D. adding 2.2 to his favorite number

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

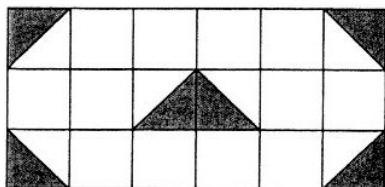
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 320. Simplify the fraction shown below. Write your answer as a fraction in simplest form.

$$\frac{\frac{1}{2} + \frac{2}{3}}{\frac{3}{4} + \frac{5}{6}}$$

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 321. The femur is the longest bone in the human body. The length of Mary's femur is 25% of her height. Mary's femur measures 16 inches. Use the information to find Mary's height. Write your answer in feet and inches.

_____ feet _____ inches

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 322. The figure below is made up of congruent squares and right triangles. What percent of the figure is shaded?



Round your answer to the nearest percent.

_____ %

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 323. Write the reciprocal of $2\frac{3}{7}$.

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 324. Sherman bought a comb and a bottle of hair spray for \$4.35. The bottle of hair spray cost twice as much as the comb. How much did the comb cost? Assume there was no sales tax.

\$ _____

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 325. A set consists of the counting numbers between 101 and 237. In how many of these numbers will the digits sum to 7? For example, the digits of 142 sum to 7, because $1 + 4 + 2 = 7$.

326. Takeru Kobayashi won a hot dog eating contest for the sixth year in a row. He ate 53.75 hot dogs in 12 minutes, consuming approximately 17,000 calories and more than 1000 grams of fat. Which of the following is the best estimate for the number of calories in one contest hot dog?
 A. 645 B. 636 C. 315 D. 170 E. 83

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 The list below consists of nine whole numbers, two of which are represented by P and Q. The numbers have not been sorted in any particular order.

2 4 4 2 5 9 P 8 Q

Use the information above to answer questions 327-329.

327. The mean of the nine number is 6. Find the value of P + Q.

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 328. The mode of the nine numbers is 2. Find the median of the nine numbers.

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 329. What number should be added to the list above so that the mean of the new list of ten numbers is 7?

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 A bag contains red marbles, green marbles, and white marbles. The marbles are identical except for their color. The probability of randomly selecting a red marble is $\frac{1}{3}$ and the probability of randomly selecting a green marble is $\frac{4}{9}$.

Use the information above to answer questions 330 and 331.

330. Find the probability of randomly selecting a white marble from the bag. Write your answer as a fraction in simplest form.

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 331. There are 12 red marbles in the bag. How many green marbles are in the bag?
 _____ green marbles

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 The table below shows the areas of the five largest islands in the world.

Name of Island	Area (in square miles)
Greenland	840,000
New Guinea	316,000
Borneo	290,000
Madagascar	228,000
Baffin Island	190,000

Note that all areas have been rounded to the nearest thousand.

Use the information in the table to answer questions 332-334.

332. Find the mean area of the five largest islands. Round your answer to the nearest thousand.
 _____ square miles

A circle graph is constructed showing the relative areas of the five largest islands.

333. Find the measure of the central angle of the sector representing Greenland. Round your answer to the nearest tenth of a degree.

_____ degrees

334. What percent of the circle graph does the sector labeled Borneo represent? Round your answer to the nearest tenth of a percent.

_____ percent

335. There are three sisters in a family, ages 6, 7, and 8. Together they get \$7.35 for their weekly allowance. Each sister gets \$1 less than the next-older sister. How much does the seven-year old sister get for her weekly allowance?

\$ _____

336. What is the largest possible product of two counting numbers whose sum is 23?

337. Vanessa rode her bike four-fifths of the way home in 16 minutes. At this same rate, how many minutes will it take Vanessa to ride her bike the rest of the way home?

_____ minutes

338. I am thinking of a three-digit number. I multiply it by itself. Which of the following could be the last digit of the product?

- A. 1 B. 2 C. 7 D. 8

339. Grandma wants to carve a turkey at 6:15 p.m. The turkey weighs 20 pounds. The directions say to roast the turkey in a preheated oven for 12.5 minutes per pound. The turkey must sit 20 minutes after it is taken out of the oven before it is carved. What time should grandma put the turkey in the preheated oven?

_____ p.m.

340. To begin with, Bill and I had 16 pieces of candy altogether. I gave Bill two of my pieces. He now has three times as many pieces as I have. How many pieces of candy did I have to begin with?

_____ pieces

341. On a balance scale, 50 toothpicks balance 20 paper clips. 60 paper clips balance 2 crayons. How many toothpicks will balance 3 crayons and 4 paperclips?

_____ toothpicks

342. Megan took down the square poster of Italy from her bedroom wall and replaced it with a rectangular poster of France. The rectangular poster has a width 2 inches shorter than the width of the square poster and a length 2 inches longer than the length of the square poster. Which of the following statements gives the best comparison of the areas of the two posters?

- A. The area of the square poster is less than the area of the rectangular poster.
B. The area of the square poster is greater than the area of the rectangular poster.
C. Both posters have the same area.
D. Not enough information is given to compare the two areas.

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

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343. Circle A has a radius of 4 inches. Circle B has a circumference of 22 inches. How much larger is the area of the bigger circle than the smaller circle? Use 3.14 for pi and round your answer to the nearest tenth of a square inch.

_____ square inches

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344. Two elevators leave the same floor at the same time. Elevator A goes up 2 floors, down 6 floors, up 1 floor, and then stops. Elevator B goes down 7 floors, up 12 floors, down 3 floors, and then stops. How many floors apart are the elevators after both have stopped?

_____ floors

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345. I'm thinking of a two-digit number. It is 7 more than a multiple of 10 and 2 more than a perfect square. What number am I thinking of?

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346. Jasmine loaned her three friends a total of \$37. She loaned the second friend \$3 more than the first friend and the third friend twice as much as the second friend. How much money did she loan her first friend?

\$ _____

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347. Jan added two decimal numbers and got a sum of 12. Ed subtracted the same two numbers and got a difference of 4.6. Sarah multiplied the same two numbers. What product should she get? Do not round your answer.

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348. The original U.S. postage stamps were issued only in denominations of five cents and ten cents. Benjamin Franklin appeared on the five-cent stamp and George Washington appeared on the ten-cent stamp. In a collection of 32 original U.S. postage stamps, the postage value is \$2.65. On how many stamps in this collection does George Washington appear?

_____ stamps

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349. Sergio is preparing to sew numbers on hockey jerseys. The jerseys are to be numbered from 10 through 46. How many single-digit prime numbers will Sergio need for all these jerseys? For example, he will need one single-digit prime number for the jersey number 34 and two of them for the jersey numbered 33.

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350. The 69th annual All-American Soap Box derby was held in July 2006. This year 44% of the contestants were female. If there were 242 female contestants, how many contestants were there altogether?

_____ contestants

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351. Mandy plans to put pennies, nickels, dimes and quarters in her piggy bank according to the following schedule: one penny on May 1, two nickels on May 2, three dimes on May 3, and four quarters on May 4. She plans to increase the number of coins by one each day. This means she intends to put in five pennies on May 5, six nickels on May 6, seven dimes on May 7, eight quarters on May 8, and so on. If Mandy follows her plan, what will be the value of the nickels in the bank on May 31?

\$ _____

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352. At the county fair petting zoo, $\frac{1}{3}$ of the animals are bunnies, 20% are piglets, $\frac{1}{4}$ are kids (baby goats) and the remaining 13 animals are lambs. How many piglets are at the county fair petting zoo?
.....
_____ piglets

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353. Kris simplified each of the four expressions below.

$$\frac{1}{2} \text{ of } 9.24 \quad \frac{3}{4} \text{ of } 16 \quad 70\% \text{ of } 9 \quad 40\% \text{ of } 20$$

She then arranged the resulting four numbers in order from smallest to largest. Finally, she added the two middle numbers together. What answer should Kris get?

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354. Twin primes are prime numbers that differ by 2.

11 and 13 is the smallest pair of twin primes in which both prime numbers are larger than 10. What is the smallest pair of twin primes where both prime numbers are larger than 20?

_____ and _____

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A box contains 16 red socks and 12 black socks. Mohan randomly selects one sock at a time from the box. The removed socks are not replaced in the box.

Use the information above to answer questions 355 and 356.

355. What is the smallest number of socks Mohan must remove to be sure to have removed two socks of the same color?

_____ socks

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356. What is the smallest number of socks Mohan must remove to be sure to have removed two black socks?

_____ socks

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Tom's average score on Quiz 1 and Quiz 2 was 17.5 points. His average score on Quiz 3 and Quiz 4 was 16 points.

Use the information above to answer questions 357-359.

357. What was his average score on the four quizzes?

_____ points

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358. Tom's average score on Quiz 1 and Quiz 3 was 18 points. What was his average score on Quiz 2 and Quiz 4?

_____ points

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359. The maximum score possible on each quiz was 20 points. What was the lowest possible score Tom could have earned on any of the four quizzes?

_____ points

Raj has a regular die with 12 congruent faces. The faces are labeled using the numbers 1, 2, 3, ..., 12, one number per face. Raj rolls the die once.

Use the information above to answer questions 360-362.

360. Find the probability that the number on the top face is a prime number.

Write your answer as a fraction in simplest form.

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361. Find the probability that the number on the top face is a factor of 12. Write your answer as a fraction in simplest form.

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362. Raj correctly claims that there is a 25 percent probability that the number on the top face is a multiple of N. Find the value of N.

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In October 2000, the average price of a gallon of gasoline for the QuietRide bus company was \$1.532 or 153.2 cents. The table below shows how this cost was analyzed.

Category	Cost (in cents)
Crude oil	75.1
Refining	15.3
Distribution	21.4
Tax	41.4

For example, the cost of refining a gallon of their gasoline was 15.3 cents.

Use the information in the table to answer questions 363 and 364.

363. The QuietRide bus company purchased 1,000 gallons of gasoline during October 2000. What percent of their gasoline bill went to taxes? Round your answer to the nearest percent.

_____ percent

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364. The information in the table is used to prepare a circle graph showing the four cost categories. Find the measure of the central angle of the sector representing distribution costs. Round your answer to the nearest tenth of a degree.

_____ degrees

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365. On five math quizzes, Jen's average score was 9 points. Each quiz was worth 10 points. What was the lowest score she could have received on one quiz and still have an average score of 9 points?

_____ points

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366. There were 15,200 people in Dawsonville at the time of the last election. 80% of them were eligible to vote. Only 75% of those who were eligible actually voted in the election. Max Johnson, who is 61 years old, received 45% of these votes. How many votes did Max Johnson get?

_____ votes

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367. Yesterday, 92 fifth-grade students voted on where to go on a field trip. Their choices were the zoo, an amusement park, or the state capitol building. Each student voted for exactly one place. 16 students voted to go to the state capitol building. Three times as many students voted to go to the zoo as voted to go to the amusement park. How many students voted to go to the zoo?

_____ students

368. Which one of the fractions below is closest to 1 on the number line?

- A. $\frac{7}{8}$ B. $\frac{15}{16}$ C. $\frac{31}{30}$ D. $\frac{11}{10}$

369. I am less than 50 years old. This year my age is a multiple of 7. In two years my age will be a multiple of 4. In three years my age will be a multiple of 5. How old am I now?

_____ years old

370. Fran, Greg, Hal, Tom, and Jim all have birthdays on different dates in March. The dates are 2, 6, 10, 13, and 30. Tom's date is a prime number. If you multiply Jim's date by 3, you get Greg's date. Tom's date is after Greg's date. Hal was not born on March 30. Who was born on March 30?

371. I am thinking of two fractions. Both of them are greater than 0 and less than 1. Which of the following statements must be true?

- A. The sum of the two fractions must be greater than 1.
- B. The sum of the two fractions must be less than 1.
- C. The product of the two fractions must be greater than 1.
- D. The product of the two fractions must be less than 1.

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

372. Yesterday, 60 people attended a family reunion. The sum of their ages was 880 years. The average age of the 20 girls was 9 years. The average age of the 30 boys was 11 years. What was the average age of the 10 adults?
