

Ø6 2019: Q231

What is the number of pages of a certain journal article?

- 1) The size of each page is 5.5 inches by 8 inches.
- 2) The average (arithmetic mean) number of words per page is 250.

Ø6 2019: Q232

If a certain vase contains only roses and tulips, how many tulips are there in the vase?

- 1) The size of each page is 5.5 inches by 8 inches.
- 2) The average (arithmetic mean) number of words per page is 250.

Q6 2019: Q233

The cost of 10 pounds of apples and 2 pounds of grapes was \$12. What was the cost per pound of apples?

- 1) The cost per pound of grapes was \$2.
- 2) The cost of 2 pounds of apples was less than the cost of 1 pound of grapes.

Q6 2019: Q234

What was the median annual salary for the employees at Company X last year?

- 1) Last year there were 29 employees at Company X.
- 2) Last year 12 employees at Company X had an annual salary of \$24,000.

ØG 2019: Q235

How many basic units of currency X are equivalent to 250 basic units of currency Y?

- 1) 100 basic units of currency X are equivalent to 625 basic units of currency Y.
- 2) 2,000 basic units of currency X are equivalent to 12,500 basic units of currency Y.

Q6 2019: Q23Q

A company bought 3 printers and 1 scanner. What was the price of the scanner?

- 1) The total price of the printers and the scanner was \$1,300.
- 2) The price of each printer was 4 times the price of the scanner.

Ø6 2019: Q238

Each of the 256 solid-colored marbles in a box is either blue, green, or purple. What is the ratio of the number of blue marbles to the number of purple marbles in the box?

- 1) The number of green marbles in the box is 4 times the number of blue marbles in the box.
- 2) There are 192 green marbles in the box.

OG 2019: Q240

The research funds of a certain company were divided among three departments X, Y, and Z. Which one of the three departments received the greatest proportion of the research funds?

- 1) The research funds received by departments X and Y were in the ratio 3 to 5, respectively.
- 2) The research funds received by departments X and Z were in the ratio 2 to 1, respectively.

OG 2019: Q241

In a certain class, some students donated cans of food to a local food bank. What was the average (arithmetic mean) number of cans donated per student in the class?

- 1) The students donated a total of 56 cans of food.
- 2) The total number of cans donated was 40 greater than the total number of students in the class.

Ø6 2019: Q242

Each of the n employees at a certain company has a different annual salary. What is the median of the annual salaries of the n employees?

- 1) When the annual salaries of the n employees are listed in increasing order, the median is the 15th salary.
- 2) The sum of the annual salaries of the n employees is \$913,500.

OG 2019: Q243

In a recent town election, what was the ratio of the number of votes in favor of a certain proposal to the number of votes against the proposal?

- 1) The research funds received by departments X and Y were in the ratio 3 to 5, respectively.
- 2) The research funds received by departments X and Z were in the ratio 2 to 1, respectively.

OG 2019: Q244

How many men are in a certain company's vanpool program?

- 1) The ratio of men to women in the program is 3 to 2.
- 2) The men and women in the program fill 6 vans.

Q6 2019: Q248

Last semester, Professor K taught two classes, A and B. Each student in class A handed in 7 assignments and each student in class B handed in 5 assignments. How many students were in class A?

- 1) The students in both classes combined handed in a total of 85 assignments.
- 2) There were 10 students in class B.

Ø6 2019: Q249

What was the amount of John's heating bill for February greater than it was for January?

- 1) The ratio of the amount of John's heating bill for February to that for January was $\frac{26}{25}$.
- 2) The sum of the amounts of John's heating bills for January and February was \$183.60.

Ø6 2019: Q251

Machine R and machine S work at their respective constant rates. How much time does it take machine R, working alone, to complete a certain job?

- 1) The amount of time that it takes machine S, working alone, to complete the job is $\frac{3}{4}$ the amount of time that it takes machine R, working alone, to complete the job.
- 2) Machine R and machine S, working together, take 12 minutes to complete the job.

Ø6 2019: Q255

If $a + b + c = 12$, what is the value of b ?

1) $a + b = 8$

2) $b + c = 6$

Q6 2019: Q261

What is the circumference of circle C?

- 1) The radius of circle C is 2π .
- 2) Machine R and machine S, working together, take 12 minutes to complete the job.

OG 2019: Q276

Robin invested a total of \$12,000 in two investments, X and Y, so that the investments earned the same amount of simple interest. How many dollars did Robin invest in investment Y?

- 1) Investment X paid 3 percent simple annual interest, and investment Y paid 6 percent simple annual interest.
- 2) Robin invested more than \$1,000 in investment X.

OG 2019: Q277

In a real estate office that employ's n salespeople, f of them are females and x of the females are new employees. What is the value of n ?

- 1) If an employee were randomly selected from the n employees, the probability of selecting a female would be $\frac{2}{3}$.
- 2) If an employee were randomly selected from the f female employees, the probability of selecting a new employee would be $\frac{1}{2}$.

OG 2019: Q278

Is $\frac{x+1}{y+1} > \frac{x}{y}$?

1) $0 < x < y$

2) $xy > 0$

OG 2019: Q288

On June 1, Mary paid Omar \$360 for rent and utilities for the month of June. Mary moved out early, and Omar refunded the money she paid for utilities, but not for rent, for the days in June after she moved out. How many dollars did Omar refund to Mary?

- 1) Mary moved out on June 24.
- 2) The amount Mary paid for utilities was less than $\frac{1}{5}$ the amount Mary paid for rent.

OG 2019: Q290

The 10 students in a history class recently took an examination. What was the maximum score on the examination?

- 1) The mean of the scores was 75.
- 2) The standard deviation of the scores was 5.

ØG 2019: Q293

If n is an integer, what is the greatest common divisor of 12 and n ?

- 1) The product of 12 and n is 432.
- 2) The greatest common divisor of 24 and n is 12.

OG 2019: Q301

Is the sum of the prices of the 3 books that Shana bought less than \$48?

- 1) The price of the most expensive of the 3 books that Shana bought is less than \$17.
- 2) The price of the least expensive of the 3 books that Shana bought is exactly \$3 less than the price of the second most expensive book.

ØG 2019: Q318

If $xy \neq 0$, is $x^3 + y^3 > 0$?

1) $x + y > 0$

2) $xy > 0$

OG 2019: Q326

Last year, in a certain housing development, the average (arithmetic mean) price of 20 new houses was \$160,000. Did more than 9 of the 20 houses have prices that were less than the average price last year?

- 1) Last year the greatest price of one of the 20 houses was \$219,000.
- 2) Last year the median of the prices of the 20 houses was \$150,000.

