

# Latest Version: 6.0

## Question: 1

What percent is A of B?

- (1) B is 32 more than the square root of A.
- (2) A is more than 12 less than  $B/2$ .

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: E**

In this question you have two unknowns, A and B, and thus you need two equations.

Statement (1) is not enough to find A and B.

Statement (2) can be written as:  $A > B/2 - 12$ .

The second statement is an inequality and not an equation and another equation is needed to solve the question.

## Question: 2

The perimeter of a rectangle is 136, what is the area of the rectangle?

- (1) The length is more than twice the width.
- (2) The length and width are both prime numbers larger than 30.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: B**

Define L as the length and W as the width.

$2L + 2W = 136 \rightarrow L + W = 68$ . We need one more equation in order to find the area.

Statement (1) does not give you exact values and therefore it's not sufficient.

Statement (2) tells us that both L and W are prime numbers larger than 30, using the equation in the question; the only option to get 68 is with 31 and 37. This statement is sufficient; the area is  $31 \times 37$ .

### Question: 3

On an IQ exam, each correct answer grants the examinee with 3 points but every wrong answer deducts 1 points.

How much did Ernst get on the IQ exam?

- There are 50 questions in the IQ exam
- The ratio between the rights answers and the wrong answers that Ernst answered is 9 to 1.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: C**

Define C as the number of correct answers and W as the number of wrong answers.

Statement (1) tells us that  $C + W = 50$ .

Statement (2) tells us that  $(50 / (9+1) = 5)$  is the number of wrong answers and so 45 is the number of right ones.

Using the numbers presented in the question we can answer the question of how much Ernst got. Thus, Statement

(1) and (2) combined are sufficient.

### Question: 4

Is A a multiple of B?

- B is a multiple of A.
- $2A$  is a multiple of B.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: E**

Rephrase the

## question: is A

/B an integer?

Statement (1) can be written as:  $B/A$  is an integer. Take  $A = 5$ ,  $b = 10$ :  $B/A$  is an integer but  $A/B$  isn't.

Take  $A=B=4$ ,  $A/B = B/A$  and they are both integers and therefore this statement is insufficient.

Statement (2) can be written as  $2A/B$  is an integer. Take  $A=10$ ,  $B=20$ :  $2A/B$  is an integer but  $A/B$  isn't.

Take  $A=B=1$ :  $2A/B$  is an integer and also  $A/B$  is an integer and therefore this statement is also insufficient.

Question: 5

If A and B are two different two-digit numbers, is  $(A + B)/2$  an integer?

-  $AB$  is an odd number.

-  $(B-A)$  is an even number.

A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.

B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.

C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.

D. Either statement BY ITSELF is sufficient to answer the question.

E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: D**

We are required to find if the sum of A and B is an even number.

Statement (1) tells us that  $AB$  is odd. The multiplications of two odd numbers only will give an odd number and so

A and B are both odd numbers and therefore their sum is an even number. This statement is sufficient by itself.

Statement (2) is also sufficient, if the difference between two numbers is even then the numbers can either be both odds or both even. In any of the cases, their sum is even.

## Question: 6

If X and Y are both two-digit numbers, is  $XY$  an even number?

- The sum of X and Y gives an even number.

- The value of Y is three times the value of X.

A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.

B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.

C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.

- D. Either statement BY ITSELF is sufficient to answer the question.  
E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: E**

Statement (1) isn't sufficient, X and Y can be both odd or both even, but their multiplication can be either one.

Statement (2) tells us that  $Y = 3X$ , X and Y can both be even or odd from this statement and therefore this statement is also insufficient.

Both of the statements imply the same thing and so combining them will not help. More data is required.

### Question: 7

Arthur and Bartholomew live in the same multi-story apartment building. How many stories does the building have?

- There are 5 stories between the apartment of Arthur and Bartholomew.
- There are 8 stories above Arthur's apartment and 8 stories below Bartholomew's apartment.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.  
B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.  
C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.  
D. Either statement BY ITSELF is sufficient to answer the question.  
E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: E**

Define A as the Arthur's floor and B as Bartholomew's floor.

Using both statements, we don't know whether A is over B or the opposite and therefore we cannot determine the number of stories in the building.

If A is above B then: The number of stories is  $(5+8+8 = 21)$ .

If B is above A then: The number of stories is  $(5+3+3 = 11)$ .

### Question: 8

Comp and Calc are two companies that are located on different floors in a skyscraper. How many floors does the skyscraper have?

- There are 24 floors between Comp's floor and Calc's floor.
- There are 32 floors above Comp's floor and 12 floors below Calc's floor.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.

- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: C**

Using both statements we know that Comp's floor is the higher one among the two because there are only 12 floors beneath Calc's floor and therefore it must be the lower one.

The number of floors in the building is  $(12 + 24 + 32 = 68)$ .

The combination of the two statements is sufficient.

### Question: 9

What is the distance between Greentown to Blue town?

- The distance between Greentown to Red town is 20 miles.
- The distance between Blue to Red town is 5 miles.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: E**

Draw a guiding chart with three points on it.

Statement (1) tells us nothing about Blue town and so it's insufficient.

Statement (2) tells us nothing about Greentown and so it's insufficient on its own.

Even after you combine both statements, you don't know if Red town is between both cities or not.

The distance from Greentown to Blue town can be 25 or 15 miles. More data is required.

### Question: 10

How long does it take to drive from the factory to the warehouse?

- It takes 15 minutes to drive from the factory to the harbor.
- It takes 25 minutes to drive from the warehouse to the harbor.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.

- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: E**

From both statements we can't conclude where the location of the harbor relative to the other two places is, in other words, the harbor could be between the factory and the warehouse or it could be beyond the two.

The distance between the factory and the warehouse can be between 10 and 40 miles.

**Question: 11**

Jasmine is the oldest member of the "Brain Storm club". If next year, the age of Sam will be two thirds that of Jasmine, what is Sam's age today?

- Rick and Sam's twin brother.
- Three years ago, Rick's age was half of that of Jasmine.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: C**

Define J as the age of Jasmine and S as the age of Sam.

The question tells us that in a year from now:  $(S + 1) = \frac{2}{3} \times (J + 1)$ .

Statement (1) presents a new parameter, Rick's age, which is equal to Sam's age.

Statement (2) tells us that:  $(X - 3) = \frac{1}{2} \times (Y - 3)$ .

Using both statements, we have two equations with two unknowns.

**Question: 12**

X is a prime number. Is Y odd?

- (1) X is divisible by 7.
- (2) YX is an even number.

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though

NEITHER statement BY ITSELF is sufficient.

D. Either statement BY ITSELF is sufficient to answer the question.

E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: C**

From statement one we conclude that  $X=7$  because it's the only prime number that can be divided by 7. From statement two we conclude that if  $X$  was an odd number  $Y$  must be an even number, therefore both statements are required in order to solve the question.

### Question: 13

Ruth's age is two-thirds of Chris's age. How old is Chris?

(1) Two years ago Ruth was half the age Chris is today.

(2) Four and a half years from now Ruth will be seven eighths of Chris's age.

A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.

B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.

C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.

D. Either statement BY ITSELF is sufficient to answer the question.

E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: D**

From the question we know that  $R$  (Ruth) =  $(\text{Chris})$ . That's one equation with two variables; we need one more equation to solve the problem. Both statements are suitable equations and thus the answer is (d).

### Question: 14

Bob is older than his brother, Jimmy. How old is Jimmy?

(1) Two years ago Jimmy was one-third of Bob's age today.

(2) In six years from today Bob will be three times Jimmy's age today.

A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.

B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.

C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.

D. Either statement BY ITSELF is sufficient to answer the question.

E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: E**

Build an equation from each statement both equations are identical. Since we need two different equations to find two unknowns, we cannot solve this question.

### Question: 15

If X is divisible by 4, is Y odd?

(1)  $Y = x + 3$ .

(2)  $X = 4$ .

- A. Statement (1) BY ITSELF is sufficient to answer the question, but statement (2) by itself is not.
- B. Statement (2) BY ITSELF is sufficient to answer the question, but statement (1) by itself is not.
- C. Statements (1) and (2) TAKEN TOGETHER are sufficient to answer the question, even though NEITHER statement BY ITSELF is sufficient.
- D. Either statement BY ITSELF is sufficient to answer the question.
- E. Statements (1) and (2) TAKEN TOGETHER are NOT sufficient to answer the question, requiring more data pertaining to the problem.

**Answer: A**

From the question one can conclude that x is even. From statement one: an even number + odd number is an odd number. Thus, y must be odd. Statement two doesn't mention y at all, and is therefore insufficient