NO	QUESTION

1   Mrs Morley and Mr Morley are a loving couple. They constantly try to go home early after their daily activities. Today, they wanted to drive using separate cars and left home at exactly the same time to meet at their favourite restaurant located 125 km away from their home. Mrs Morley drives with a constant speed of 100km/hr while Mr Morley drives at a constant speed of 75km/hr.

How long does Mrs Morley need to wait at the restaurant before Mr Morley arrives?

     A.   25.2 minutes
     B.   15.75 minutes
     C.   22.34 minutes
     D.   30 minutes

2   Technology and development are often portrayed as the mortal enemy of environmental protection due to the fact that most of the harms done to the environment were done under the guise of providing development for people or for technological advancement. Despite this, technology can also be used to help in the recovery of the environment once applied properly. If we strategically utilise our technological resources, there will definitely be a way for us to help nature heal.

Which of the following statements, if true, best strengthens the above argument?

     A.   High-tech scanners and radars help in detecting the formation of tropical cyclones which help prevent casualties among humans.
     B.   Cars and Trucks can be used to deliver ornamental plants that can encourage people to spend money for the sake of decorating their homes and making them look eco-friendly.
     C.   Aeroplanes and ships are used to dispose of garbage by sending these waste materials to third-world countries or throwing them into the ocean.
     D.   Drones and Robots can be used to monitor forests to help spot illegal loggers, and poachers, and by using their portability feature to aid in animal rescues.

3

> Most cats and dogs have thick orange fur. All cats and dogs are animals. Most animals are mammals. Maine Coons and Dalmatians are both kinds of cats and dogs.

If the information in the box is true, whose reasoning is correct?

Tina: "If it is a Maine Coon, then it is definitely a mammal."
Jerra: "If an animal has thick orange fur, it can only either be a dog or a cat."

     A.   Tina is correct
     B.   Jerra is correct.
     C.   Both of them are correct.
     D.   Both of them are wrong

4 Merlinda wants to purchase 10 pieces of the same ornamental plant but she's not sure which shop she ought to choose from. She wants to buy from only one shop where she has to spend the least amount of money.

The shops are as follows:

Shop	Price per Plant	Discount
Green Forest Shop	$100	25% off on every 3rd item
Lost Garden Shop	$110	75% off on every 4th item
Vegetables R US	$115	Buy 1 get 1 with 40% off
Botanica Garden Shop	$105	Buy 2 get 1 with 30% off

Which shop will Merlinda pick?

    A.   Green Forest Shop
    B.   Lost Garden Shop
    C.   Vegetables R US
    D.   Botanica Garden Shop

5 A person can only be allowed to enrol in May Queen University if they graduated from Juniper High School and got an average grade of 95%.

If the information above is true, which of the following conclusions follow?

    I.   Anna can enrol in May Queen University as she graduated from Juniper High School
    II.   Leroy can enrol at Mayqueen University since he has an average grade of 99%.
    III.   If Jenna does not enrol in May Queen University, it's only because she did not graduate from Juniper High School and had an average of 95%.
    IV.   No student of Mayqueen University did not come from Juniper High School.

    A.   I, II, III, IV
    B.   III only.
    C.   III and IV only
    D.   IV only

6   The School of Arts and Sciences conducted a survey about their degree program with the most active students. They finished the survey and had the following results:

Degree Program	Number of Active Students
International Studies	120
Political Science	200
Applied Mathematics	120
Mass Communication	50

Before they can convert the findings into a pie chart, some of the votes from one program were transferred to an adjacent one as shown in the chart below:

- International Studies
- Political Science
- Applied Mathematics
- Mass Communication
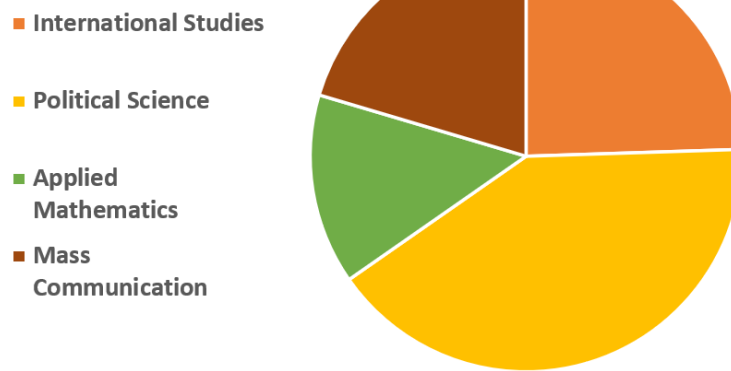
Which adjacent programs had their number of votes affected?

A. International Studies and Political Science
B. Political Science and Applied Mathematics
C. Applied Mathematics and Mass Communication
D. Mass Communication and International Studies.

7

Jeremy and Nicole are athletes. All athletes have great physical strength and endurance. Some Athletes have good coordination and balance. Physical Strength and Endurance are 2 out of 5 health-related components. Every individual should have at least one good health-related component.

If all the statements in the box above are true, whose reasoning is correct?

Mira: "If one has physical endurance and strength, then they must be an athlete."
**Lira**: "Jeremy and Nicole definitely have more than one good health-related component."
**Aira**: "Aside from having strength and endurance, Nicole also has good balance."

A. Mira
B. Lira
C. Aira
D. Only one of them is wrong.

8 Alice and her friends decided to gather some gemstones in the nearby mine for their Mineralogy class. After gathering all of the gemstones, they came up with the following results:

Name	No. of Gems Gathered
Alice	25
Betty	10
Charlie	5
Daisy	40
Esther	25
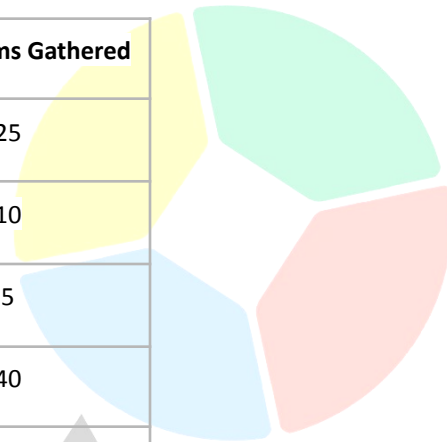
Unfortunately, some of Daisy's stones were accidentally added to someone else. The bar chart below illustrates the new allocation of gemstones including the mistake that happened to Daisy.
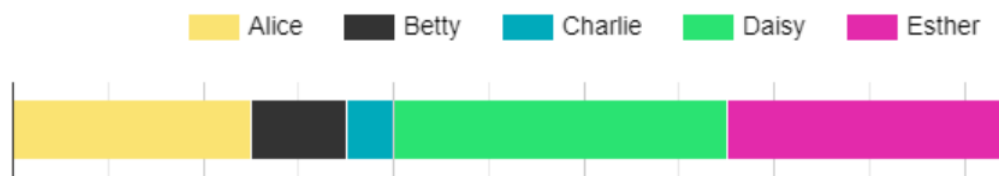
Who among their group of friends received Daisy's gemstones erroneously?

- A. Alice
- B. Betty
- C. Charlie
- D. Esther

9 According to a study published in Nature Climate Change, the annual number of tropical cyclones forming globally declined by roughly 13% over the 20th century compared to the 19th. In addition, the atmospheric conditions that influence the creation of tropical cyclones have weakened. This is proof that a rise in human-caused global warming led to a drop in the frequency of tropical storms. With all these in mind, we can conclude that there is no longer a need to worry about these tropical storms.

Which of the following statements, if true, best weakens the above argument?

- A. The decrease in the number of cyclones meant the risk of storm surges, landslides, and damage to property decreased equating to more lives being saved.
- B. These tropical storms are still prevalent since they form in the oceans bringing rain and winds into the regions it visits which lead to suspension of classes and delays in work schedules.
- C. The decrease in the number of tropical cyclones meant the creation of fewer but more devastating supertyphoons such as Rai and Haiyan.
- D. The efforts of the people in combating the side effects of global warming have finally given way to the recovery of our atmospheric conditions.

**10**   All birds can fly. A penguin cannot fly. An albatross is a bird.

If the information above is true, which of the following conclusions follow?

    I.   A penguin is not a bird.
    II.   Only birds can fly.
    III.   Some birds cannot fly
    IV.   An albatross can fly.
    V.   If an animal does not fly, it cannot be a bird.

    A.   I, II, III, IV
    B.   II, IV, V
    C.   III, IV, V
    D.   I, IV, V
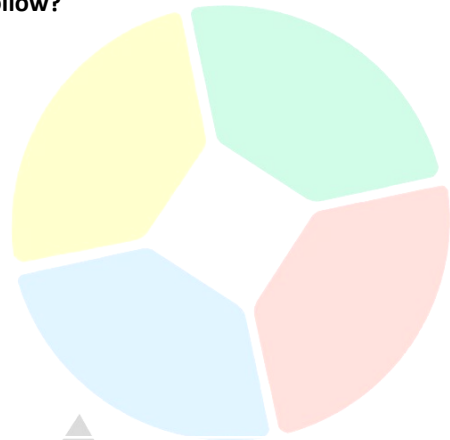
11

Private companies and public authorities are quietly using facial recognition systems around Australia. Despite the growing use of this controversial technology, there is little in the way of specific regulations and guidelines to govern its use.
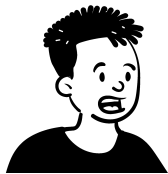
Seth: "We should not make use of facial recognition systems because it is heavily unregulated. The next thing we might know, these people already have access to our DNA and other sensitive information!"

Which one of the following best expresses the flaw in the statement?

    A.   Seth's statement relied on the opinion of someone he looks up to which means it's not necessarily true or objective.
    B.   Seth made use of personal attacks to share his point which diluted the point of further explanation since he already resorted to underhanded means.
    C.   Seth's statement was based on exaggerated results of which he was not able to provide any evidence.
    D.   Seth failed to consider that someone probably has contrasting evidence that can debunk his claims.

12   The contestants of "Are you smarter than a 5th Grader?" had the following scores throughout the first 5 rounds:

Name	Round 1	Round 2	Round 3	Round 4	Round 5
Chunsha	12	3	12	8	12
Sarah	8	13	3	6	13
Leroy	9	9	8	3	14
Winnie	3	8	15	4	5
Portia	14	7	6	9	6
Winona	6	4	7	8	7
Margarette	7	3	12	8	9
Jules	8	12	8	11	6

Each round is composed of 15 questions and every correct answer equates to one point.
One of the contestants is guaranteed to win the competition if they scored a certain amount of points in the remaining 2 rounds.

What is the minimum number of points the contestant must get to secure the win?

A. 30
B. 29
C. 28
D. 27

13   All babies drink milk. Some babies cry at night. All babies cry when they are hungry.

If all the statements above are true, whose reasoning is correct?

Julia: "If it drinks milk, then it definitely must be a baby."
**Jules**: "If something doesn't cry when it is hungry, then it definitely isn't a baby."
Aira: "If a baby is crying at night, it is because it's hungry."

A. Julia
B. Jules
C. Aira
D. All of them are correct.

14

> Cigarettes are harmful to one's health due to the substances they contain. Cigarettes commonly have tar and nicotine which clog your lungs and cause various respiratory diseases. Other variants even have arsenic and cyanide which all the more damage the tissues within your body.

Josephine: "Since I don't smoke any cigarettes, I am sure to never experience a respiratory disease."
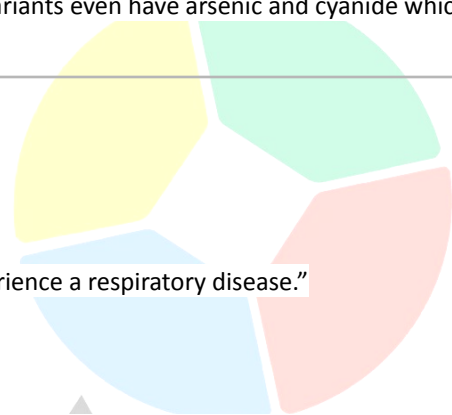
Which one of the following best expresses the flaw in the statement?

    A.   Josephine based her statement on a personal bias about cigarettes rather than objective proof of why she won't get any respiratory disease.
    B.   Josephine failed to consider that she can still smoke cigarettes in the future, thus, she shouldn't be so confident today.
    C.   Josephine thought that only smoking cigarettes can cause respiratory diseases.
    D.   Josephine based her statement on a statement of a person she adores making it less reliable.

15   The annual financial report of Choco Company showed the sales of their chocolate bar in five different countries:

Country	Sales
China	1,000
Philippines	550
Indonesia	2,050
Myanmar	900
Thailand	4,000

During the preparation of the corresponding pie chart, one of the borders has been moved as shown:

■ China
■ Philippines
■ Indonesia
■ Myanmar
■ Thailand
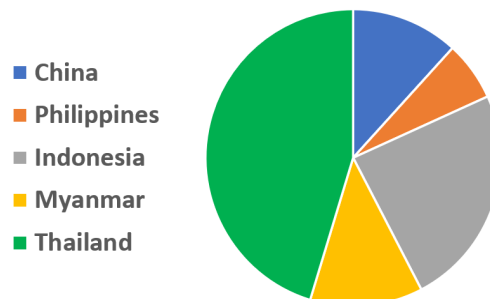
Which variables had their borders moved?

    A.   Thailand and China
    B.   China and Philippines
    C.   Indonesia and Myanmar
    D.   Myanmar and Thailand

16 Jeremy and Leonardo attended a Halloween party and got 70 candies each

Leonardo's 2-year-old cousin, Donatella, wanted to have some but Leonardo is hesitant about it. So then Jeremy came up with the idea of rolling dice so that they can share their candies with Donatella. They take turns to roll

- If it is an even number, then Jeremy will receive 20 candies from Leonardo.
- If it is an odd number, then Leonardo will give the number of candies shown on the face of the dice plus twelve to Donatella.

Jeremy rolls 4.
Leonardo rolls 5.

Jeremy gave half of his candies to Donatella along with all the candies that Leonardo gave to him.

How many candies did Leonardo lose?

    A.   20
    B.   32
    C.   37
    D.   45

17 A fleet of UFOs was observed, and pictures were taken of them at the same time from different places: one looking from the north and the other looking from the west.
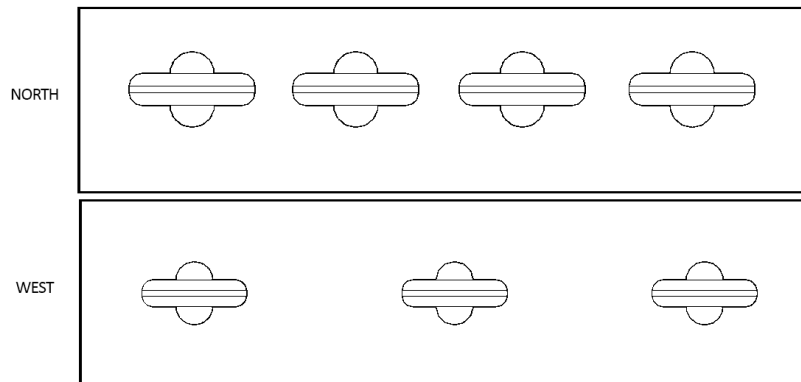
What is the largest number of UFOs that could be in the fleet?

    A.   8
    B.   12
    C.   15
    D.   18

18 Margot has 7 cubic bricks. Each brick has a different letter on each face. The letters on each brick are:

Brick 1: EDFJLC
Brick 2: SZIVHW
Brick 3: MXEHBM
Brick 4: CAWKEL
Brick 5: NTRZMY
Brick 6: GYXRHJ
Brick 7: OVFLBC

Which one of the following can Margot not spell out with her bricks?

    A.   MANGOES
    B.   ARCHERY
    C.   REVERSE
    D.   GIRAFFE

19 Charity was asked by her mother to purchase 7 metres of fabric from only one of the shops in the fabric lane. She was given $1,000 to purchase the fabrics and was told that she can keep the change as a reward for being an obedient daughter.

The different stores offered the following promotional discounts:

Cloth Store	Price per Metre	Discount
Faux Cloth Shop	$120	Buy 1 Get 1 for 35% of the Price
Thick n Soft Cloth Store	$130	Buy 2 Get 1 at 35% off
Vibrant Textile Shop	$134	First 3 items are free
Ella's Cloth Sale Stop	$125	15% Discount on all Items

Assuming Charity was able to buy the fabric for the least cost, how much money does she get to keep for herself?

    A. $464.00
    B. $536.00
    C. $595.50
    D. $606.00

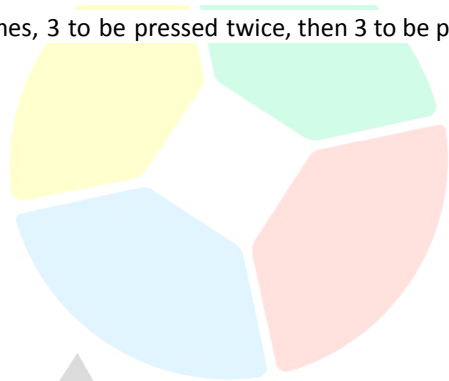**20** Mobile phones use the following keys for forming words when sending text messages.

2	3	4	5	6	7	8	9
ABC	DEF	GHI	JKL	MNO	PQRS	TUV	WXYZ

To form the word RED, for instance, requires 7 to be pressed three times, 3 to be pressed twice, then 3 to be pressed once more.
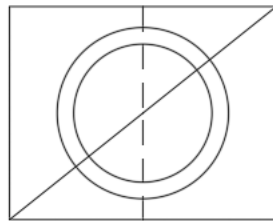
Message: "May we meet again someday."
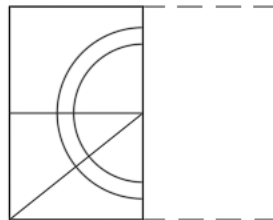
Which key was pressed the most number of times?
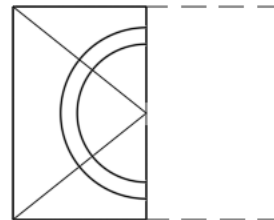
   A. 7
   B. 6
   C. 5
   D. 3

21 **Find out from amongst the four alternatives how the pattern would appear when the transparent sheet is folded at the dotted line.**
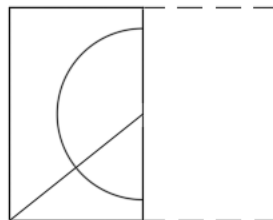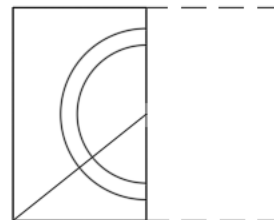
A.

C.

B.

D.

22 National Entrance Exams are created to assess whether or not a certain student is equipped with the minimum skills and intelligence that the school has set for itself based on its standards. It is a glorified version of 'trimming the fat' where students who did not have access to resources and privileges like the affluent ones did will inevitably lose the opportunity to improve their circumstances. Due to its oppressive nature, we must remove these entrance exams.

Which of the following statements, if true, best weakens the above argument?

   A. National Entrance Exams ensure that a school could only accept good quality students to protect its reputation and maintain high rates in licensure exams.
   B. By having entrance exams, schools can funnel their resources to the most deserving students which will yield a return on investment in the future.
   C. Having entrance exams ensure that education is seen as an important privilege that needs to be earned and not just given away.
   D. National Entrance Exams help the government assess the overall quality of the education sector and spot weak points that need improvement and provide aid thereafter.

23 Studying abroad lets you see and learn new places and cultures. It allows you to make more culturally diverse friends and gives you a better understanding of the world as a whole, all while earning your degree. It will help you learn valuable skills, like how to speak other languages, how to become more flexible, and how to become a good problem-solver.

Which among the following statements best concludes the argument?

   A. Studying abroad offers a wide variety of learnings for holistic growth.
   B. Studying abroad makes it more likely for you to land a high-paying job.
   C. Studying abroad creates unique and unforgettable moments to cherish.
   D. Studying abroad is an opportunity for students to be exposed to different cultures.

24 A recent study has proven that the Omicron wave that hit Australia earlier this year was far greater than previously believed. Additionally, Australia's Health Minister Mark Butler agreed that over the next few years, there will be a "very huge wave" of people with lengthy COVID. Long COVID is defined by the World Health Organisation as symptoms that appear three months after infection and last at least two months but are not consistent with any other conditions. As limitations are relaxed and the number of cases increases, physicians and researchers have been raising concerns about the lengthy COVID's growing threat.

Which among the following best stated the conclusion of the passage above?

   A. Long covid is dangerous, so Australians should listen to their health minister.
   B. There is a rise in long covid cases, thus, we have to keep wearing our masks.
   C. There is a rise in long covid cases, thus, medical practitioners have become alarmed.
   D. Long covid is dangerous, so people should be careful when interacting with others per the instructions of WHO.

25 Remington Middle School values its students' grades a lot. They conduct monthly exams for all students and the class average is derived to assess which classes are doing better than the others.

The students of Mrs Robinson's classes had the following average exam scores:

Class	Average Score
1	85
2	75
3	100
4	95
5	80
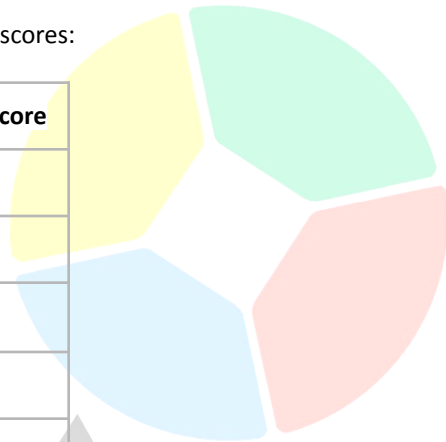
Due to a system glitch that occurred after a sudden power outage, some exam scores from another teacher's class were transferred to one of Mrs Robinson's classes causing an increase in class average as shown in the bar chart below: (the class averages are still in multiples of 5)

Which Class received the scores by mistake?

- A. Class 1
- B. Class 2
- C. Class 3
- D. Class 4

26 Ford has officially launched its new F9000 car model which has 4 wheels and one spare attached to the back. It also launched a mini V3000 model which has 4 wheels only. This year, both of these models had the same number of sales and the same manufacturing count.

If Ford used 5,859 wheels in their manufacturing of the 2 new models, how many units of F9000 and V3000 did they manufacture?

- A. 640 each
- B. 647 each
- C. 651 each
- D. 655 each

27   Cornelia, Amy, and Tyra are competing with each other on a 10-round quiz bowl cup. Their current standing is as follows:

Name	Round 1	Round 2	Round 3	Round 4	Round 5
Cornelia	1st	3rd	1st	2nd	1st
Amy	2nd	1st	2nd	3rd	2nd
Tyra	3rd	2nd	3rd	1st	3rd

Amy is confident that she will never rank in 3rd place for the remaining rounds.

If every 1st place is worth 5 points, 2nd place for 4 points, and 3rd place for 2 points, how many times (at a minimum) should Amy rank 1st for her to guarantee a win in the quiz bowl cup?

   A.   5
   B.   4
   C.   3
   D.   Amy cannot win this quiz bowl cup because she is far behind Cornelia.

28   The village of Caiyi, and its allied villages, follow a shared set of strict protocols. Only when the gong in the village rings can the farmers start their daily routine. Only the village chief is allowed to ring the gong.

If the above statement is true, which of the following statements must also be true?

Jake: "If the farmers started their daily routine after the gong rings, then they are in Caiyi village."
Elise: "If Jake cannot ring the gong, it must mean that Jake is definitely not the village chief."
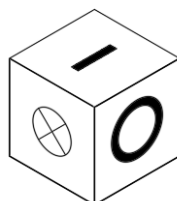
   A.   Jake is correct.
   B.   Elise is correct
   C.   Both of them are correct.
   D.   Both of them are wrong.

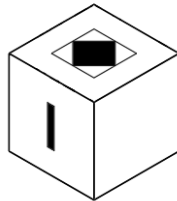**29**   A net with different sides is shown below.

If the net was folded into a cube, which of the following would be a possible output?
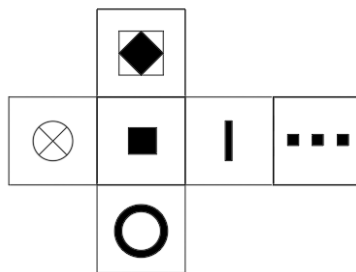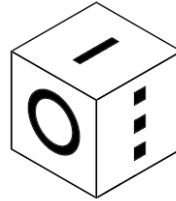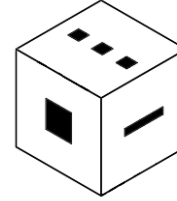

A.   B.   C.   D.

Margarette has a sweet tooth and is a dessert lover. However, there are certain desserts that can make her experience symptoms that her doctor warns her about such as sugar rush and nausea. If Margarette eats cake, she will experience a sugar rush. If Margarette eats candies, she experiences nausea but relieves her from experiencing the side effects of eating cake.

If the above statement is true, which of the following statements must also be true?

Jay: "If Margarette is experiencing a sugar rush, she definitely did not eat candies."
Ann: "If Margarette is not experiencing a sugar rush, it's only because she ate candies."

- A. Jay only
- B. Ann only
- C. Jay and Ann
- D. Both of them are wrong.