

# A clause being sandwiched between 2 commas does not always mean it's a non-essential clause.

↳ sometimes the independent clause can be joined to 2 dependent clauses using commas, one before and one after the independent clause, sandwiching it

7. Oscar Howe enrolled in the Santa Fe Studio School in his late teens, learning the flat style of painting taught there. Although the school encouraged students to create the kinds of stylized art he would later rail \_\_\_\_\_ Howe worked successfully in this style for many years, gradually loosening its constraints to pursue his own creative interests.

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| <input type="radio"/> against,     | <input checked="" type="checkbox"/> |
| <input type="radio"/> against      |                                     |
| <input type="radio"/> against—     | <input checked="" type="checkbox"/> |
| <input type="radio"/> against, but |                                     |

## Question Analysis:

6. While bees can survive in the dark, they prefer to be in the sunlight. The shaded interiors of woodlands are therefore considered a poor habitat for bees. New research shows that many types of bees are active high above the \_\_\_\_ suggests wild bees are just as happy in treetops as they are among the flowers at ground level.

- |   |                                     |
|---|-------------------------------------|
| <input type="radio"/> trees, however; a discovery that  | <input checked="" type="checkbox"/> |
| <input type="radio"/> trees, however, a discovery that  | <input checked="" type="checkbox"/> |
| <input type="radio"/> trees, however, a discovery, that |                                     |
| <input type="radio"/> trees, however, this discovery    |                                     |

↳ we do not use "this" or "that" without a noun accompanying it

↳ here the "noun + that", as a whole, is considered a relative pronoun; thus it is a dependent clause

## # Verb tense agreement for compound subjects

↳ If 2 or more nouns are joined using "and" to form the subject; then the verb will be **PLURAL**

↳ If 2 or more nouns are joined using "or" to form the subject; then the verb will be **SINGULAR**

## # Question Analysis

Using satellite remote sensing, Dr. Catherine Nakalembe, director of NASA's Harvest Africa initiative, gathers important data on crop health. Nakalembe doesn't just compile the \_\_\_\_\_ she also shares her findings with African farmers, enabling them to make data-driven decisions about managing critical food crops.

- Which choice completes the text so that it conforms to the conventions of Standard English?
- A. information, though;
  - B. information, though,
  - C. information; though
  - D. information though.

The mere presence of "also" does NOT turn the clause into a Dependent clause

ID: 790fc366  
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- Which choice completes the text so that it conforms to the conventions of Standard English?
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  - C. information; though
  - D. information though.

ID: 790fc366 Answer

Correct Answer: A

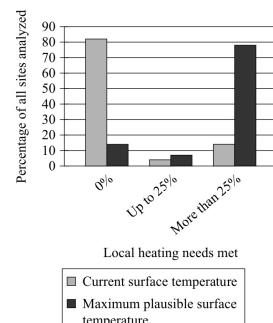
Rationale

Choice A is the best answer. This choice uses a semicolon to join two independent clauses ("Nakalembe doesn't just...") and ("she also shares..."). This choice also appropriately includes "though" in the first clause, where it logically belongs.

Choice B is incorrect. This choice makes a grammar error called a comma splice. It incorrectly joins two independent clauses with only a comma instead of a coordinating conjunction like "and" or "but." "Though" is a transition word, but it's not a coordinating conjunction. Choice C is incorrect. This choice results in a punctuation error. A semicolon can only be used to link two independent clauses. However, if "though" is included in the second clause, it fails to meet the requirements of a dependent clause, as a semicolon can't lead off a dependent clause. Choice D is incorrect. This choice results in a grammar error called a comma splice. It incorrectly joins two independent clauses with only a comma instead of a comma and a coordinating conjunction like "and" or "but."

Question Difficulty: Hard

Home Heating Needs Met with Subsurface Thermal Pollution for Two Temperature Conditions, by Percentage of Sites



Local heating needs met

- Current surface temperature
- Maximum plausible surface temperature

Urbanization, industrialization, and the warming climate create thermal pollution (excess heat) in the shallow subsurface soil. Susanne A. Benz and colleagues analyzed thousands of sites on three continents under one scenario in which surface temperature remains at the current level and under another in which the surface reaches the maximum plausible temperature. They then categorized each site according to the percentage of local home heating needs that could be met using this excess subsurface heat. The team concluded that if surface temperature approaches the maximum plausible level, the percentage of sites where thermal pollution could feasibly contribute to meeting home heating needs will increase.

Which choice best describes data in the graph that support Benz and colleagues' conclusion?

- Under both temperature conditions, less than 10% of sites were in the up-to-25% group, but at the maximum plausible surface temperature, almost 80% of sites could have all their local heating needs met by thermal pollution.
- At current surface temperatures, more than 80% of the sites have no need for supplemental local home heating from subsurface thermal pollution, but at the maximum plausible surface temperature, more than 70% of sites exhibit significantly greater home heating needs.
- At current surface temperatures, more than 80% of sites can meet, at most, 25% of local home heating needs with subsurface thermal pollution, but at the maximum plausible surface temperature, more than 80% of sites can meet C. greater than 25% of local home heating needs.
- At current surface temperatures, more than 80% of the sites cannot use subsurface thermal pollution to meet any portion of local home heating needs, but at the maximum plausible surface temperature, that percentage drops D. below 20%.

ID: be19faa1 Answer

Correct Answer: D

Rationale

Choice D is the best answer. The researchers concluded that as we approach maximum plausible surface temperatures, there will be a larger percentage of sites where thermal pollution could contribute to meeting home heating needs. By showing that only a small percentage of homes can currently use thermal pollution for home heating, and that this percentage would grow much larger at maximum plausible surface temperatures, this choice supports the researchers' conclusion.

Choice A is incorrect. We do not know how many sites could have all (i.e., 100%) of their local heating needs met by thermal pollution, as the graph only classifies sites by whether "0%", "Up to 25%", and "More than 25%" of heating needs could be met. Choice B is incorrect. The graph is not depicting need for supplemental heating from thermal pollution, but rather potential to use thermal pollution for supplemental heating. Choice C is incorrect. The graph indicates that, at current surface temperatures, less than 10% of sites can meet 25% of local home heating needs and that more than 80% of sites cannot meet any local home heating needs.

## # How to identify the correct answer

- ↳ The correct option will always be explicitly mentioned in the text (restatement). They may change the words used, but it will always be directly taken from the text with no additional (implied) information added.
- ↳ DO NOT pick any answer choices that depend on the implied meaning of the text — no matter how strong the implication. The correct answer will NEVER contain any information that is not explicitly stated in the text.
- ↳ Exception: DEMONSTRATION: The correct answer provides an example of a scenario that is exactly described in the text or vice versa.
- ★ Even when the question asks for "what is implied" or similar, always prioritize what's explicitly stated in the text.

### ↳ Example:

ID: 08395130



The Hubble Space Telescope (HST) is projected to maintain operation until at least 2030, but it has already revolutionized high-resolution imaging of solar-system bodies in visible and ultraviolet (UV) light wavelengths, notwithstanding that only about 6% of the bodies imaged by the HST are within the solar system. NASA researcher Cindy L. Young and colleagues assert that a new space telescope dedicated exclusively to solar-system observations would permit an extensive survey of minor solar-system bodies and long-term UV observation to discern how solar-system bodies change over time. Young and colleagues' recommendation therefore implies that the HST \_\_\_\_\_

Which choice most logically completes the text?

A. will likely continue to be used primarily to observe objects outside the solar system.

+ ✓

B. Young and colleagues is deployed.

✓

C. can be modified to observe the features of solar system objects that are of interest to Young and colleagues.

D. lacks the sensors to observe the wavelengths of light needed to discern how solar system bodies change over time.

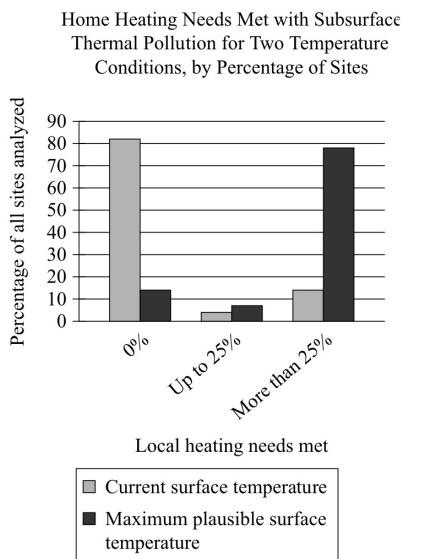
B is incorrect as the 2 telescopes have different functions that do NOT overlap. official answer explanation states that the implication in B was too strong to be made by the text

Choice B is incorrect. This inference is too strong to be supported by the text. Even if the new telescope is deployed, the HST might still be used as it's being used now. Based on the text, the new telescope would just be used for more extensive and long-term imaging of solar system bodies, which doesn't necessarily overlap with the HST.

- ↳ wrong answers will try to confuse students by containing implied meanings. This can be done directly OR the wrong answer might restate the text while adding 1 or 2 words that add additional implied information that was not explicitly stated. Must be very careful about this type of wrong answers.

## # Questions with graphs and figures

- ↪ Only read the last 1-2 sentences from the passage
- ↪ Read the last line and question carefully as it might contain a keyword that heavily influences which choice is the correct answer and speeds things up by helping you to identify the correct answer quickly
- ↪ The keyword can be used to identify a trend that the correct answer must show or a feature the correct answer must have
- ↪ Carefully analyze the axis to interpret the graph effectively — do not get overwhelmed
- ↪ If the y-axis of the bar chart is a % of something, then the height of the bars must add up to 100.
  - ↪ e.g.



## # Transition words

Continue	Cause-and Effect	Contradict
Add Information Also And Furthermore In addition Moreover	Emphasize In fact Indeed	Accordingly As a result As such Because Consequently For Hence Since So Thus Therefore Finally While
Give Example For example For instance Specifically	Compare Likewise Similarly	Alternately Alternatively (Al)though But Conversely Despite/In spite of Even so Even though However In any case In contrast <del>to</del> Instead Meanwhile Nevertheless Nonetheless On the contrary On the other hand Otherwise Rather Regardless Still Whereas While Yet
Define, Clarify Effectively Essentially In other words <span style="color: red;">*</span> That is	Sequence of Events Previously Subsequently	

↪ You can replace a word with another word in the same group to see if it fits.

↪ Do this if you are confused on usage.

↪ For eg: you might think that "in contrast" might fit in the passage. To check, you can just place "however" in the same blank to see if it fits as well.

# # Summary of Study means - Summary of study + Summary of findings

## # (Seems to) verb still makes independent clause

### SAT Practice 4 - October 4, 2024 Math: Question 21

Two identical rectangular prisms each have a height of 90 centimeters (cm). The base of each prism is a square, and the surface area of each prism is  $K \text{ cm}^2$ . If the prisms are glued together along a square base, the resulting prism has a surface area of  $\frac{92}{47}K \text{ cm}^2$ . What is the side length, in cm, of each square base?

- A. 4
- B. 8
- C. 9
- D. 16

You selected answer A. The correct answer is B.

#### Explanation

Choice B is correct. Let  $x$  represent the side length, in cm, of each square base. If the two prisms are glued together along a square base, the resulting prism has a surface area equal to twice the surface area of one of the prisms, minus the area of the two square bases that are being glued together, which yields  $2K - 2x^2 \text{ cm}^2$ . It's given that this resulting surface area is equal to  $\frac{92}{47}K \text{ cm}^2$ , so  $2K - 2x^2 = \frac{92}{47}K$ . Subtracting  $\frac{92}{47}K$  from both sides of this equation yields  $2K - \frac{92}{47}K - 2x^2 = 0$ . This equation can be rewritten by multiplying  $2K$  on the left-hand side by  $\frac{47}{47}$ , which yields  $\frac{94}{47}K - \frac{92}{47}K - 2x^2 = 0$ , or  $\frac{2}{47}K - 2x^2 = 0$ . Adding  $2x^2$  to both sides of this equation yields  $\frac{2}{47}K = 2x^2$ . Multiplying both sides of this equation by  $\frac{47}{2}$  yields  $K = 47x^2$ . The surface area  $K$ , in  $\text{cm}^2$ , of each rectangular prism is equivalent to the sum of the areas of the two square bases and the areas of the four lateral faces. Since the height of each rectangular prism is 90 cm and the side length of each square base is  $x$  cm, it follows that the area of each square base is  $x^2 \text{ cm}^2$  and the area of each lateral face is  $90x \text{ cm}^2$ . Therefore, the surface area of each rectangular prism can be represented by the expression  $2x^2 + 4(90x)$ , or  $2x^2 + 360x$ . Substituting this expression for  $K$  in the equation  $K = 47x^2$  yields  $2x^2 + 360x = 47x^2$ . Subtracting  $2x^2$  and  $360x$  from both sides of this equation yields  $0 = 45x^2 - 360x$ . Factoring  $x$  from the right-hand side of this equation yields  $0 = x(45x - 360)$ . Applying the zero product property, it follows that  $x = 0$  and  $45x - 360 = 0$ . Adding 360 to both sides of the equation  $45x - 360 = 0$  yields  $45x = 360$ . Dividing both sides of this equation by 45 yields  $x = 8$ . Since a side length of a rectangular prism can't be 0, the length of each square base is 8 cm.

### SAT Practice 4 - October 4, 2024 Math: Question 22

In the  $xy$ -plane, a parabola has vertex  $(9, -14)$  and intersects the  $x$ -axis at two points. If the equation of the parabola is written in the form  $y = ax^2 + bx + c$ , where  $a$ ,  $b$ , and  $c$  are constants, which of the following could be the value of  $a + b + c$ ?

- A. -23
- B. -19
- C. -14
- D. -12

You selected answer C. The correct answer is D.

#### Explanation

Choice D is correct. The equation of a parabola in the  $xy$ -plane can be written in the form  $y = a(x - h)^2 + k$ , where  $a$  is a constant and  $(h, k)$  is the vertex of the parabola. If  $a$  is positive, the parabola will open upward, and if  $a$  is negative, the parabola will open downward. It's given that the parabola has vertex  $(9, -14)$ . Substituting 9 for  $h$  and -14 for  $k$  in the equation  $y = a(x - h)^2 + k$  gives  $y = a(x - 9)^2 - 14$ , which can be rewritten as  $y = a(x - 9)(x - 9) - 14$ , or  $y = a(x^2 - 18x + 81) - 14$ . Distributing the factor of  $a$  on the right-hand side of this equation yields  $y = ax^2 - 18ax + 81a - 14$ . Therefore, the equation of the parabola,  $y = ax^2 - 18ax + 81a - 14$ , can be written in the form  $y = ax^2 + bx + c$ , where  $a = a$ ,  $b = -18a$ , and  $c = 81a - 14$ . Substituting -18a for  $b$  and 81a - 14 for  $c$  in the expression  $a + b + c$  yields  $(a) + (-18a) + (81a - 14)$ , or  $64a - 14$ . Since the vertex of the parabola,  $(9, -14)$ , is below the  $x$ -axis, and it's given that the parabola intersects the  $x$ -axis at two points, the parabola must open upward. Therefore, the constant  $a$  must have a positive value. Setting the expression  $64a - 14$  equal to the value in choice D yields  $64a - 14 = -12$ . Adding 14 to both sides of this equation yields  $64a = 2$ . Dividing both sides of this equation by 64 yields  $a = \frac{2}{64}$ , which is a positive value. Therefore, if the equation of the parabola is written in the form  $y = ax^2 + bx + c$ , where  $a$ ,  $b$ , and  $c$  are constants, the value of  $a + b + c$  could be -12.

Choice A is incorrect. If the equation of a parabola with a vertex at  $(9, -14)$  is written in the form  $y = ax^2 + bx + c$ , where  $a$ ,  $b$ , and  $c$  are constants and  $a + b + c = -23$ , then the value of  $a$  will be negative, which means the parabola will open downward, not upward, and will intersect the  $x$ -axis at zero points, not two points.

### SAT Practice 4 - October 4, 2024 Reading and Writing: Question 17

To humans, it does not appear that the golden orb-weaver spider uses camouflage to capture its \_\_\_\_\_. The brightly colored arachnid seems to wait conspicuously in the center of its large circular web for insects to approach. Researcher Po Peng of the University of Melbourne has explained that the spider's distinctive coloration may in fact be part of its appeal.

17

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. prey, rather,
- B. prey rather,
- C. prey, rather;
- D. prey; rather,

You selected the correct answer. The correct answer is D.

#### Explanation

Choice D is the best answer. The convention being tested is the coordination of main clauses within a sentence. The semicolon is correctly used to join the first main clause ("To humans...prey") and the second main clause ("Rather...approach"). Further, the comma after the adverb "rather" is correctly used to separate the adverb from the main clause ("the brightly...approach") it modifies, logically indicating that the

Hide correct answer and explanation

Previous

Next

### SAT Practice 4 - October 4, 2024 Reading and Writing: Question 26

While researching a topic, a student has taken the following notes:

- In 2019, Emily Shepard and colleagues in the UK and Germany studied the effect of wind on auks' success in landing at cliffside nesting sites.
- They found as wind conditions intensified, the birds needed more attempts in order to make a successful landing.
- When the wind was still, almost 100% of landing attempts were successful.
- In a strong breeze, approximately 40% of attempts were successful.
- In near-gale conditions, only around 20% of attempts were successful.

26

The student wants to summarize the study. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. For a 2019 study, researchers from the UK and Germany collected data on auks' attempts to land at cliffside nesting sites in different wind conditions.
- B. Emily Shepard and her colleagues wanted to know the extent to which wind affected auks' success in landing at cliffside nesting sites, so they conducted a study.
- C. Knowing that auks often need multiple attempts to land at their cliffside nesting sites, Emily Shepard studied the birds' success rate, which was only around 20% in some conditions.
- D. Emily Shepard's 2019 study of auks' success in landing at cliffside nesting sites showed that as wind conditions intensified, the birds' success rate decreased.

You selected the correct answer. The correct answer is D.

Hide correct answer and explanation

Previous

Next