Trick Question or Stupid Question?

July 28, 2024

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   - **Trick Question**
   - **Stupid Question**

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   - **Trick Question**
   - **Stupid Question**
5. We will do this several times- there will be SIX SETS of questions.

Trick Question or Stupid Question? PART I

1. What is the least common birthday in America?
2. What US state has the easternmost point in America?
3. What is the least common first names for a U.S. President as of summer 2024?

Answer to PART I, Q1

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CORRECT ANS Feb 29.

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MISC Second Least: Dec 25.

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MISC Second Least: Dec 25.

MISC Most common: Sept 16. 9 months after Holiday Season.

Answer to PART I, Q2

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MY OPINION Using the Prime Meridian to define East and West this precisely is stupid.

Answer to PART I, Q3

What is the least common first name for a U.S. President as of Summer 2024?

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COMMON ANS The following presidents have a unique first name among presidents: Thomas Jefferson, Martin Van Buren, Zachery Taylor, Millard Fillmore, Abraham Lincoln, Ulysses Grant, Rutherford Hayes, Chester Arthur, Grover Cleveland, Benjamin Harrison, Theodore Roosevelt, Woodrow Wilson, Warren Harding, Calvin Coolidge, Herbert Hoover, Harry Truman, Dwight Eisenhower, Lyndon Johnson, Richard Nixon, Gerald Ford, Ronald Reagan, Barack Obama, Donald Trump, Joe Biden.

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CORRECT ANS All of the names that no president had are tied.

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Misc Facts, NOT Trick vs Stupid

What is the **most common first name** for a president?

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What is the **most common first name** for a president?

1. James 6: Madison, Monroe, Polk, Buchanan, Garfield, "Jimmy" Carter.
2. John 4: Adams, Quincy Adams, Tyler, Kennedy
3. Bill 3: William Henry Harrison, William H. Taft, Bill Clinton.
4. George 3: George Washington, George H.W. Bush, George W. Bush.
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What is the **most common last name** for a president?

1. John Adams and John Quincy Adams. Father and Son.
2. Andrew Johnson and Lyndon B Johnson. No relation.
3. William Henry Harrison and Benjamin Harrison. Grandfather and Grandson.
4. Theodore and Franklin Roosevelt: 5th Cousins. (Do you know your fifth cousin?)
5. Bush: George H.W. and George W. Father and Son.

Trick Question or Stupid Question? PART II

1. An expert on tracking animals notices one day that there are bear tracks and rabbit tracks converging. He can estimate that they met at 6:00PM with a margin of error of 17 seconds. Hence they must have been there at the same time. He also notices that from the spot they met only rabbit tracks can seen leaving that point. There are some bear bones in the area.

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I would call him a sore loser.

Trick Question or Stupid Question? PART III

1. TRUE or FALSE:
   If the powerset of A has 5 elts then A is infinite.
2. Find x such that the following is true. There are 2025 cans of paint. Either (a) There are $\geq x$ cans of the same color, or (b) There are $\geq x$ cans of different colors.
3. The year is 2021. There are 23 people in REU-CAAR. If everyone hugs everyone, how many hugs are there?

Answers to PART III, Q1

T or F: If the powerset of the set A has 5 elts then A is ∞.

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WHAT HAPPENED People did TERRIBLE on this question both times. Even the honors section.

Answers to PART III, Q2

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Find x such that the following is true. There are 2025 cans of paint. Either (a) There are $\geq x$ cans of the same color, or (b) There are $\geq x$ cans of different colors.

Common and Correct Answer $\sqrt{2025} = 45$.

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COMMON and INCORRECT ANSWER

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Some students think that in combinatorics the answer for a problem with n is always $n!$.

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ANSWER I HAD IN MIND REU-CAAR in Summer 2021 was VIRTUAL. So sadly, no hugs :-)

My Great Niece Alice and his Girlfriend Bob

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BILL: 13 people. Everyone hugs everyone. How many hugs?

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ALICE: $13 \times 13 = 169$ pairs of people, but that counts every pair twice, so $\frac{169}{2} = 84.5$. Uh, I don't think you can have 84.5 hugs

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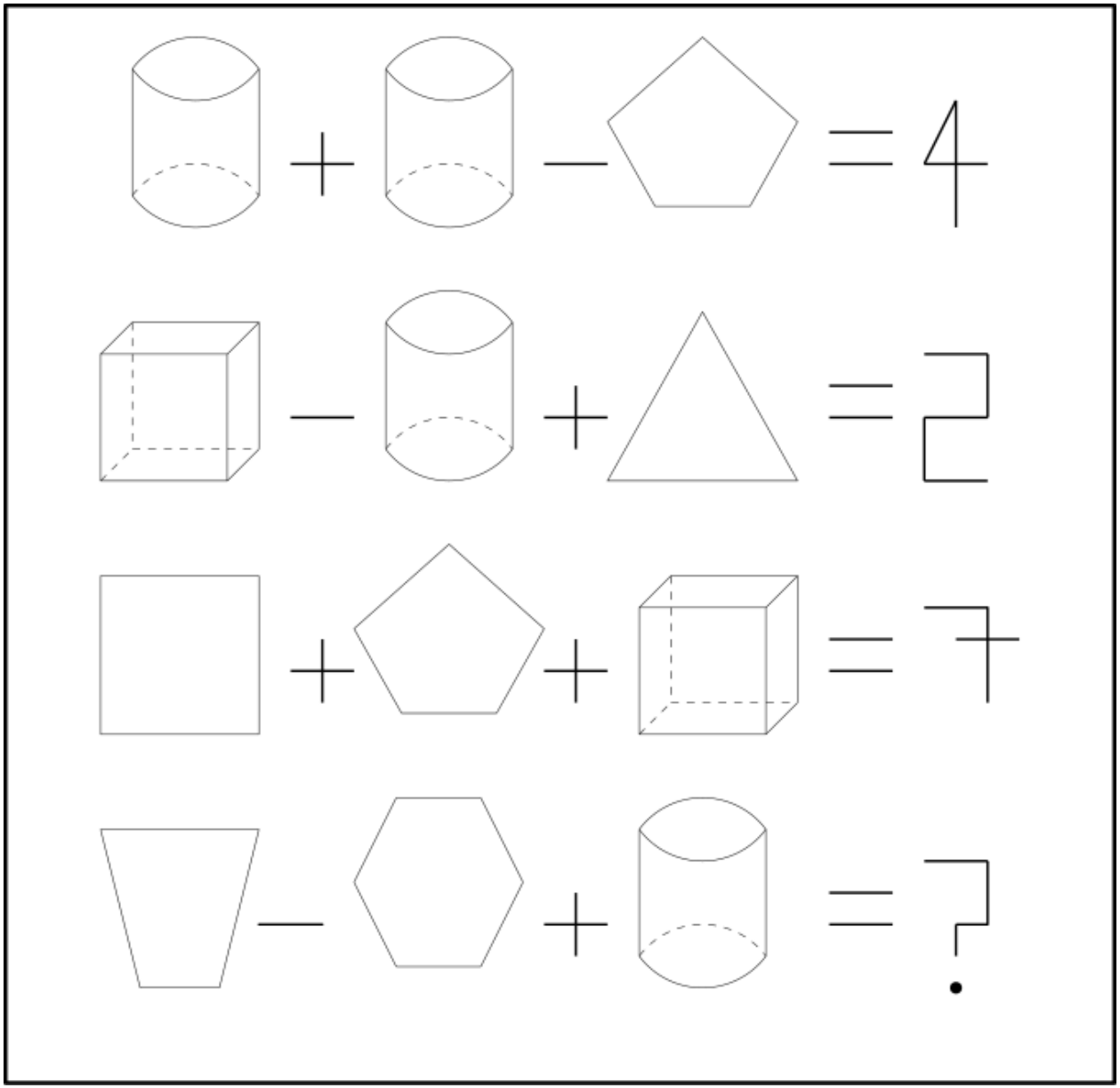
ALICE and **BOB**: Oh. So for n people is it $\frac{n(n-1)}{2}$.

My Great Niece Alice and his Girlfriend Bob

BILL: 13 people. Everyone hugs everyone. How many hugs?
ALICE: $13 \times 13 = 169$ pairs of people, but that counts every pair twice, so $\frac{169}{2} = 84.5$. Uh, I don't think you can have 84.5 hugs
BOB: Why not? If I hug you with only one arm. Thats a $\frac{1}{2}$-hug.
ALICE: Well, you do most things half-ass so that works.
BILL: The answer has to be in $\mathbb{N}$. When you said 13×13 you counted hugging yourself. You can't hug yourself.
BOB: Before I met Alice I hugged myself a lot.
ALICE: EWWW!
BILL: I am amazed you two are still together. Back to the problem. Take all ordered pairs of **different people**. Thats 13×12. Divide by two to get $\frac{13 \times 12}{2} = 78$
ALICE and **BOB**: Oh. So for n people is it $\frac{n(n-1)}{2}$.
BILL: You deserve a hug! (they hug).

PART V: Fill in the ?



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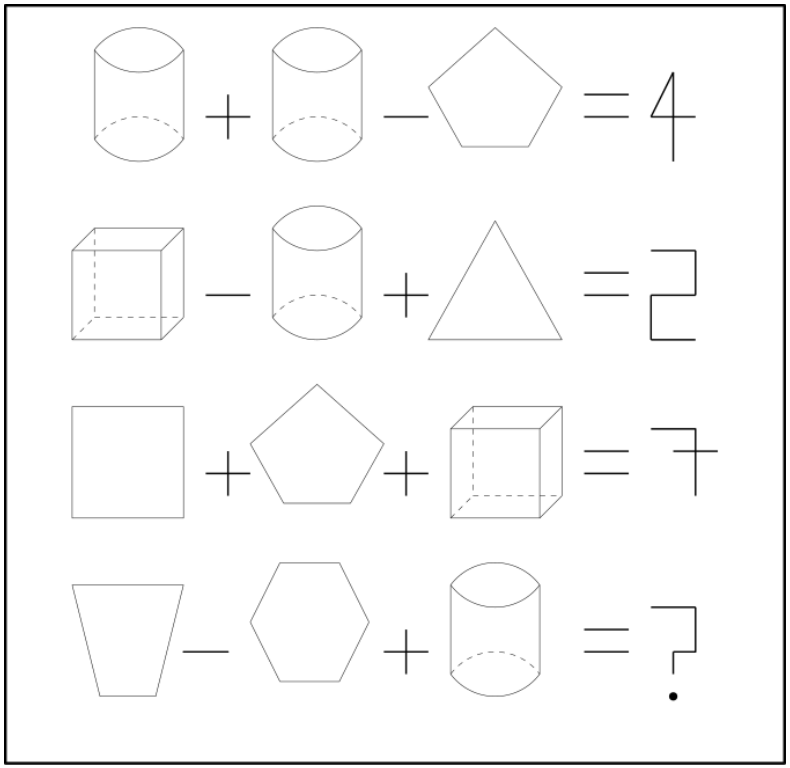

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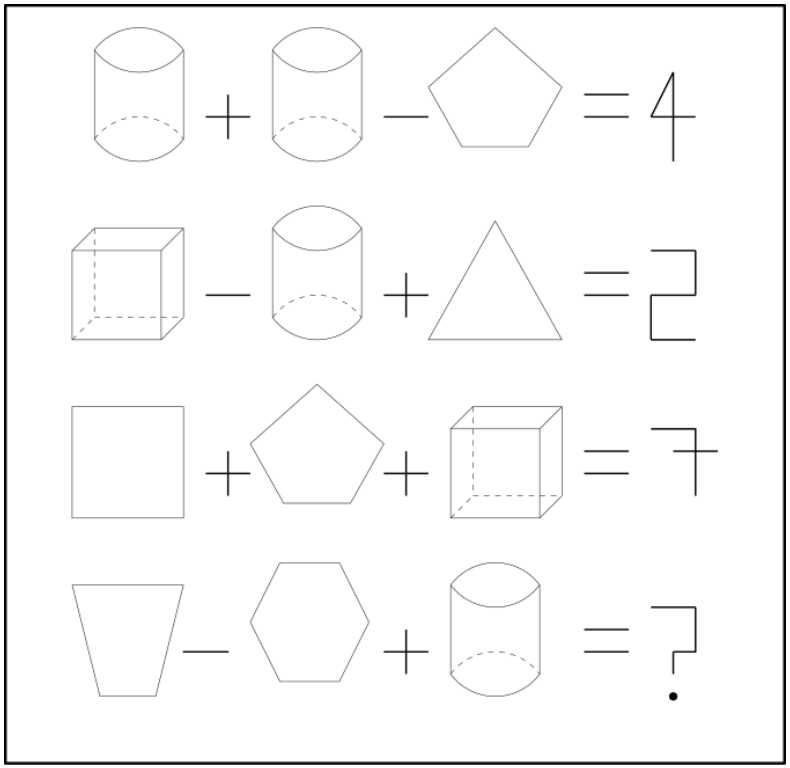

Sum the dimensions.

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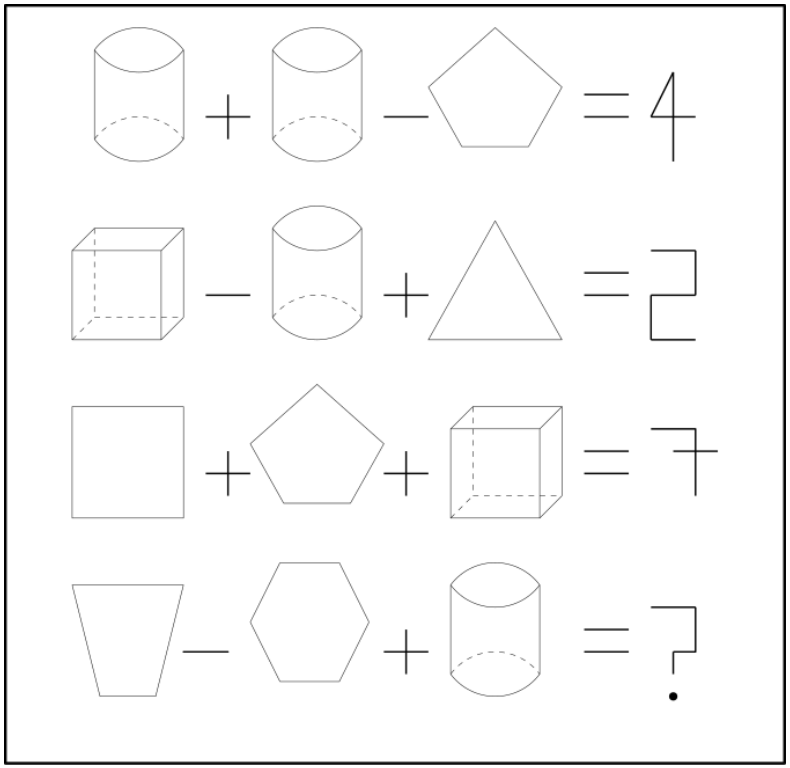

Sum the dimensions.

$3 + 3 - 2 = 4$

$3 - 3 + 2 = 2$

$2 + 2 + 3 = 7$

$2 - 2 + 3 - 3$

Trick Question or Stupid Question? PART VI

The following are two real conversations. For each one: (1) Is the examiner correct? (2) Where and when do you think this conversation took place?

Conversation 1:

Examiner: What is the definition of a circle?

Student: The set of points equidistant from a given point.

Examiner: Wrong! It is the set of *all* points equidistant from a given point.

Conversation 2:

Examiner: What is the definition of a circle?

Student: It is the set of all points equidistant from a given point.

Examiner: Wrong! You must say the distance is nonzero.

Answers to PART VI, Q2

The questions were in the USSR and used for the sole point of not letting Jews into the best schools.

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Comment Any system which blocks qualified people from doing what they are good at is stupid.
See next slide for more thoughts on this.

Racism is Idiotic

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Racism is Idiotic

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I wonder how they would fill in this sentence

On the one hand, if Jackie plays for us, we will win more games and have a better chance of getting into the World Series, which would increase my paycheck (Salary $5000. World series paid *another* $5000.) On the other hand FILL IT IN.

Racism is Idiotic

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The Boston Red Sox didn't integrate until 1959.

Racism is Idiotic

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I wonder how the team owner would fill in this sentence

On the one hand, if I hire black players I expand my talent pool, get better players, and have a better chance of getting into the World Series, which would increase my profits (baseball didn't make as much money then as now). On the other hand FILL IT IN.

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Homophobia is Not Just Immoral, It's Stupid

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Continued on the next slides.

Same Topic

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How would the military fill in the following sentence

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This all came to a head when the Military desperately needed translators and kept firing the gay ones.

How would the military fill in the following sentence

On the one hand, if we stop firing our gay translators we would know what are enemies are doing. On the other hand FILL IT IN.

More Generally

Any society that **bans** some group

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(e.g., blacks, gays, women, non-citizens, Jews, Catholics, Atheists, Muslims, Uyghurs, Wisians, you can name more)

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How would they fill in the following sentence?

On the one hand if we let people participate in our society we will get more talented people channeled into activities that will benefit our society. On the other hand, if we ban Y from doing X then FILL IT IN.

To End on a Brighter Note

Back to our original theme.

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- Trick
- Stupid
- Enlightening

It can also be some combination of these.

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NOT five.