

Example 1 (base prompt, GPT-4-V, correct)

Type of question: Multiple choice

To find the value of the square that makes the fractions equivalent, we need to find a number that, when divided by 21, gives the same value as 4 divided by 14.

To simplify the fraction $\frac{4}{14}$, we divide both the numerator and the denominator by their greatest common divisor, which is 2. This gives us $\frac{2}{7}$.

Now, we need to find a number that, when placed in the square and divided by 21, gives us the fraction $\frac{2}{7}$.

Since $21 = 7 \times 3$, we need to find a number that, when multiplied by $\frac{1}{3}$, gives us 2. That number is $2 \times 3 = 6$.

Therefore, the value of the square that makes the fractions equivalent is 6.

Answer: [A] 6

Answer: - For multiple-choice: [A] 6

Example 2 (base prompt, Gemini-Vision-Pro, incorrect)

1. This is a multiple-choice question.

2. First, I notice that the number line is labeled from 26 to 28. This means that the value of K must be between 26 and 28.

3. Next, I look at the answer choices. [A] 27.4 is the closest to 27, so it is a possibility. [B] 27.8 is also close, but it is further away from 27 than [A] 27.4. [C] 27.9 is even further away from 27 than [B] 27.8, so it is unlikely to be the correct answer. [D] 28.2 is the furthest away from 27, so it is the least likely to be the correct answer.

4. Based on this reasoning, I would select [A] 27.4 as the best answer.

Example 3 (prompt variant 1, GPT4-V, correct)

Type of Question: [Free Text Response] This is a free-text response question. To find the value of x , we will use the formula for the volume of a rectangular box, which is:

$$\text{Volume} = \text{length} \times \text{width} \times \text{height}$$

The volume of the box is given as 200 cm^3 , the width is 5 cm, and the height is 4 cm. We can set up the equation as follows:

$$200 = x \times 5 \times 4$$

To solve for x , we divide both sides of the equation by 5×4 :

$$x = \frac{200}{5 \times 4}$$

$$x = \frac{200}{20}$$

$$x = 10 \text{ cm}$$

Answer: $x = 10 \text{ cm}$