

ACT Bellringers

Monday October 12th-English, slides 2-5

Tuesday October 13th-Math, slides 6-7

Thursday October 15th-Science, slides 8-11

English Question 1 of 2

DIRECTIONS: In the passages that follow, certain words and phrases are underlined. For each question, choose the alternative you consider best. If you think the original version is best, choose "NO CHANGE."

Whether its bright and jaunty or haunting and melancholic, the music of the Andes highlands has a mellow sound unique in the musical world.

- A. NO CHANGE
- B. they're
- C. it's
- D. its'

English Answer 1

The best answer is C. The contraction *it's*, meaning *it is*, is needed in this context because otherwise the introductory, dependent clause would have no subject or verb. In addition, the singular pronoun form (*it's*) is required for proper subject-verb agreement.

The best answer is NOT A because the pronoun *its* does not fit the context of the sentence. The contraction *it's*, meaning *it is*, is needed because otherwise the introductory, dependent clause would have no subject or verb.

The best answer is NOT B because the contraction *they're*, meaning *they are*, includes a plural pronoun (*they*), but a singular form is required to maintain agreement with the singular subject *music*.

The best answer is NOT D because *its'* is not a contraction meaning *it is*, which is the appropriate subject-verb in this context.

English Question 2 of 2

DIRECTIONS: In the passages that follow, certain words and phrases are underlined. For each question, choose the alternative you consider best. If you think the original version is best, choose "NO CHANGE."

Whether it's bright and jaunty or haunting and melancholic, the music of the Andes highlands has a mellow sound unique in the musical world. The instrument responsible for this sound is the *antara*, or Andean panpipe, known for the hollow-sounding, breathy notes it creates. The antara has its origins in the Incan civilization, once the more richer and more powerful empire in South America.

F. NO CHANGE

H. the richest and most

G. one of the richest and most

J. the richer and more

English Answer 2

The best answer is H because the correct adjective form in this context is the superlative: *richest and most powerful*. The superlative form is needed because the comparison involves more than two items. The writer compares the Incan civilization with *all* of the different peoples of South America.

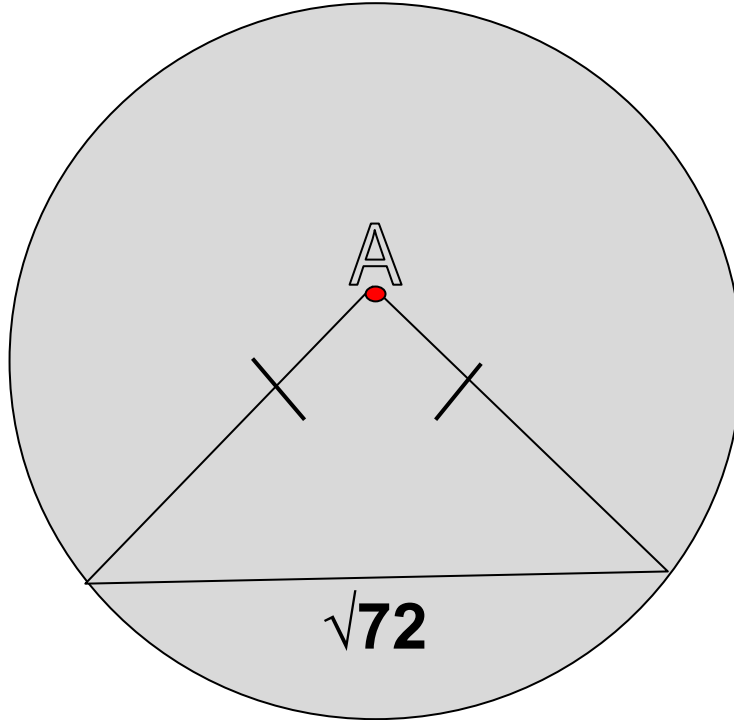
The best answer is NOT F because the phrase "more richer and more powerful" is a comparative adjective form, and in this context, the superlative "richest and most powerful" is required.

The best answer is NOT G because the phrase "one of the richest and most powerful" does not agree with the singular noun *empire*.

The best answer is NOT J because the phrase "the richer and more powerful" is a comparative adjective form, and in this context, the superlative "richest and most powerful" is required.

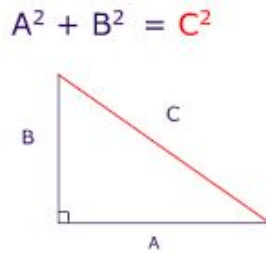
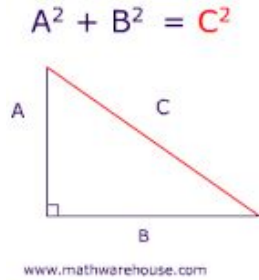
Math Question

Given A is the center of the circle, what is the radius of the circle?



Math Answer

Use the given information of the two sides being congruent and Pythagorean theorem .



You can easily come up with the equation.

$$X^2 + X^2 = (\sqrt[2]{72})^2$$

Solve for X.

Step 1. $2X^2 = 72$ Step 2. $X^2 = \frac{72}{2}$ Step 3. $\sqrt[2]{X^2} = \sqrt[2]{36}$

Solution $X = 6$

Science Instructions: Read the passage and charts (2 slides) to answer the question that follows.

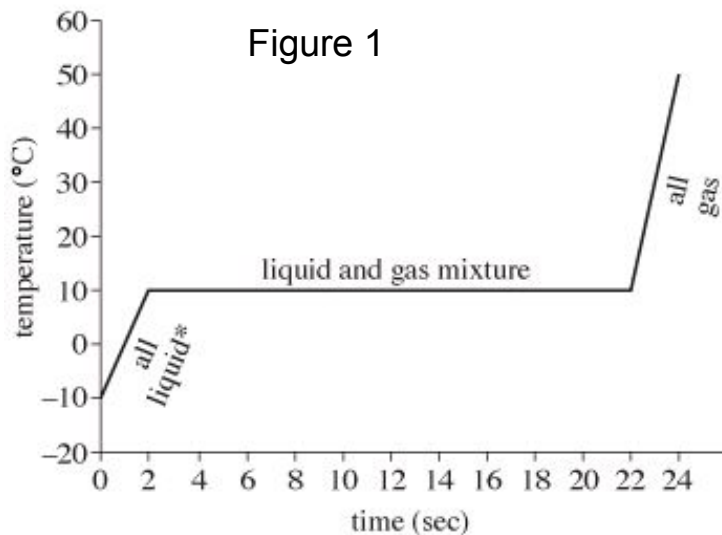
Passage VI

Suppose that 1 gram (g) of Material A, initially a liquid, is kept in a cylinder fitted with a piston at a constant pressure of 1 atmosphere (atm). Table 1 and Figure 1, respectively, show how Material A's volume and temperature vary over time as Material A absorbs heat at a rate of 10 calories per second (cal/sec). Table 2 gives the boiling points of liquid Materials B–D at 1 atm; the heat absorbed refers to the amount of heat that is needed to turn 1 g of a liquid at its boiling point into a gas.

Table 1

Time (sec)	Volume of Material A (cm ³)
0	1
2	1
4	136
6	271
8	406
10	541
12	676
14	811
16	946
18	1,081
20	1,216
22	1,351
24	1,541

Figure 1



*Between 0 and 2 sec, some gaseous Material A is present, but the amount is negligible.

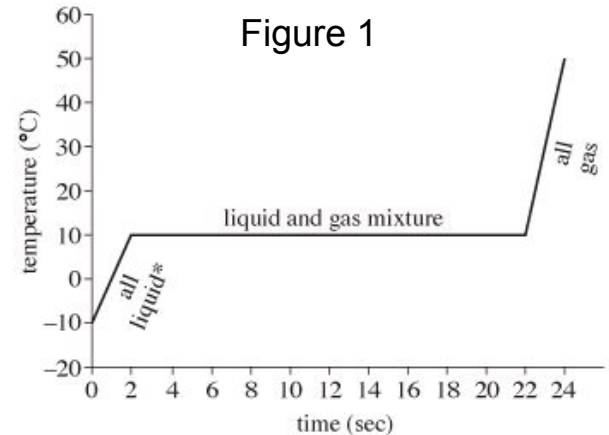
Table 2

Material	Boiling point (°C)	Heat absorbed (cal)
B	13	500
C	19	610
D	28	270

Science Question

Based on Figure 1, Material A's temperature increased the fastest during which of the following time intervals?

- A. 0–2 sec
- B. 2–12 sec
- C. 12–22 sec
- D. 22–24 sec



*Between 0 and 2 sec, some gaseous Material A is present, but the amount is negligible.

Science Answer

D is the best answer. During the time interval 0–2 sec, the temperature of Material A increased by about 20°C . During the time interval 2–12 sec, the temperature of Material A remained constant. During the time interval 12–22 sec, the temperature of Material A remained constant. During the time interval 22–24 sec, the temperature of Material A increased by about 25°C . Since the duration of the time interval 0–2 sec equals the duration of the time interval 22–24 sec and the increase in temperature was greater during the latter time interval, the temperature increased the fastest during the time interval 22–24 sec.

A is not the best answer. During the time interval 0–2 sec, the temperature of Material A increased by about 20°C . During the time interval 22–24 sec, the temperature of Material A increased by about 25°C .

B is not the best answer. During the time interval 2–12 sec, the temperature of Material A remained constant. During the time interval 22–24 sec, the temperature of Material A increased by about 25°C .

C is not the best answer. During the time interval 12–22 sec, the temperature of Material A remained constant. During the time interval 22–24 sec, the temperature of Material A increased by about 25°C .