

1

Look at the table below. It shows the boiling points of five substances. The three boiling points are given in °C.

Propane: -42 °C

Krypton: -153 °C

Xenon: -108 °C

Methane: -164 °C

Cyclopropane: -32.7 °C

Which substance has the lowest boiling point?

- A** Propane **B** Krypton **C** Xenon **D** Methane **E** Cyclopropane

2

Room temperature is 23 °C.

The boiling point of Xenon is -108 °C.

How many degrees is this above the boiling point of Xenon?

- A** 85 **B** 131 **C** 108 **D** 23 **E** 153

3

A list of 6 numbers is written in ascending order.

The four numbers 0.06, 0.194, 0.6 and 0.24 must be placed into the gaps below.

_____ 0.112 _____ _____ _____ 0.75

Which option shows the four missing numbers in the order they fill the gaps?

- A** 0.06, 0.194, 0.24, 0.6
B 0.06, 0.24, 0.194, 0.6
C 0.6, 0.24, 0.194, 0.06
D 0.194, 0.06, 0.24, 0.6
E 0.06, 0.194, 0.6, 0.24

4

There are 12 bad apples and 18 good apples in a bag.



STIRLING TUITION

What fraction of the bag are bad apples?

A $\frac{2}{5}$

B $\frac{12}{18}$

C $\frac{12}{15}$

D $\frac{18}{30}$

E $\frac{2}{3}$

For question 5, you have to **write** your answer in the space provided.

5

Refer to question 4.

What percentage of the apples are good?

_____ %

Read the **whole** passage carefully, then answer the questions that follow.

The Never-Ending Lesson

1. The first 20 minutes of dance class always seemed to last forever. Melissa and Jane faced
2. the mirrored wall, each with one arm curved overhead. Their arched and pointed feet in pink
3. ballet shoes traced half-circles on the wood floor.
4. When the warm-up ended, the two girls collapsed, groaning. "My feet!" Jane moaned.
5. "They're killing me!"

6. Mrs. Lark, their teacher, was not amused. "Stand up, girls," she insisted. "You need to be
7. ready for the dance competition next month, and your turns need work."
8. Jane rubbed her sore feet. "We've been practicing all week," she complained, again pawing at
9. her cramping sole. The dance teacher clapped her hands sternly. "I won't let the two of you get
10. lazy this time," she said. "Remember what happened last year?"

11. The two girls looked down in silence. They were remembering the judges and the crowd at
12. last year's competition. It had been a huge disappointment.
13. "We should get back to work," Melissa mumbled, as she heaved herself up.
14. Jane was getting up, too. She tugged at her tights and pushed back her bangs. "We'll be
15. ready," she assured Mrs. Lark as she positioned herself for turns, "even if we must put in extra
16. practice every day for the next four weeks."
17. "It'll be worth it," Melissa agreed. "Let's take it from the top."

For these questions you have to **write your answers**, neatly, in the boxes provided.

- 1** Look at lines 1–5. Give two details that the text tells us about what Melissa and Jane were doing during the warm-up.

- 2** Look at lines 6–10. What does Mrs. Lark's question 'Remember what happened last year?' suggest about why she is being strict with the girls?

3 Look at line 13. What does the word 'heaved' suggest about how Melissa felt as she got up?

4 Which one part of speech are the following words as they appear in the passage?
me (line 5), **she** (line 6), **They** (line 11), **It** (line 12)

5 Which part of speech is 'always' as it appears in the passage? (line 1)

Answers

Maths

- 1) D Methane
- 2) B 131
- 3) A 0.06, 0.194, 0.24, 0.6
- 4) A $\frac{2}{5}$
- 5) 60%

English

- 1) Accept any valid response, e.g.: they faced the mirrored wall (line 1); each had one arm curved overhead (lines 1–2); their feet were arched and pointed in pink ballet shoes (line 2); they traced half-circles on the wood floor (lines 2–3)
- 2) Accept any valid response, e.g.: she does not want them to repeat last year's disappointing result; she is reminding them of their past failure to motivate them to work hard / not get lazy so they perform better this time
- 3) Accept any valid response, e.g.: 'heaved' suggests Melissa felt tired / weary / sore and that getting up took real effort; it shows she was reluctant / exhausted and had to force her body to move
- 4) Pronouns
- 5) Adverb