



Name _____ Class _____ Date _____

- 1 As **lead melts**, there is a **change** in its
- A temperature
 - B heat of fusion
 - C average molecular kinetic energy
 - D average molecular potential energy

- 3 A cylinder fitted with a piston contains a fixed mass of an ideal gas. Heat is added to the gas, causing it to expand and raise the piston. **If all the added heat is converted to work done in raising the piston, the internal energy of the gas will**



A decrease

5

See the answer key for the correct choice.



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7

lowered to 1.0 atmosphere, causing the boiling point of the coolant to

- A decrease
- B increase
- C remain the same



9

Absolute zero is best described as the temperature at which

- A water freezes at standard pressure
- B water is at its triple point
- C the molecules of a substance have maximum kinetic energy
- D the molecules of a substance have minimum kinetic energy

- 2 How do the **freezing point** and **boiling point** of **ocean water** compare to those of **distilled water**?

- A Ocean water freezes at a lower temperature and boils at a lower temperature.
- B Ocean water freezes at a lower temperature and boils at a higher temperature.
- C Ocean water freezes at a higher temperature and boils at a lower temperature.
- D Ocean water freezes at a higher temperature and boils at a higher temperature.

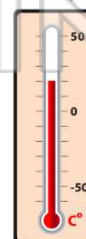
- 4 Two solid metal blocks are placed in an insulated container. If there is a **net flow of heat between the blocks**, they must have **different**

- A initial temperatures
- B melting points



- 10 A temperature change of **20 Celsius degrees** is equal to a temperature change of

- A 20 Kelvins
- B 120 Kelvins
- C 253 Kelvins
- D 293 Kelvins





ANSWER KEY

As **lead melts**, there is a **change** in its

- A temperature
- B heat of fusion
- C average molecular kinetic energy
- D average molecular potential energy

(d)

How do the **freezing point** and **boiling point** of **ocean water** compare to those of **distilled water**?

- A Ocean water freezes at a lower temperature and boils at a lower temperature.
- B Ocean water freezes at a lower temperature and boils at a higher temperature.
- C Ocean water freezes at a higher temperature and boils at a lower temperature.
- D Ocean water freezes at a higher temperature and boils at a higher temperature.

(b)

A cylinder fitted with a piston contains a fixed mass of an ideal gas. Heat is added to the gas, causing it to expand and raise the piston. If all the **added heat is converted to work done in raising the piston**, the **internal energy of the gas** will

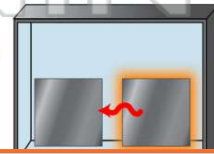
- A decrease
- B increase
- C remain the same
- D double



(c)

Two solid metal blocks are placed in an insulated container. If there is a **net flow of heat between the blocks**, they must have **different**

- A initial temperatures
- B melting points
- C specific heats
- D heats of fusion



(a)



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- A decrease
- B increase
- C remain the same
- D double



- B twice as great
- C one-fourth as great
- D four times as great

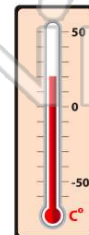
Absolute zero is best described as the temperature at which

- A water freezes at standard pressure
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- C the molecules of a substance have maximum kinetic energy
- D the molecules of a substance have minimum kinetic energy

(d)

A temperature change of **20 Celsius degrees** is equal to a temperature change of

- A 20 Kelvins
- B 120 Kelvins
- C 253 Kelvins
- D 293 Kelvins



(a)