Comparing Designs with Evidence Worksheet

Scoring guide · one credit per question · review written work against each rubric

Comparing Designs with Evidence

Question 1

Choice (1)

Only $13 is at or below $15.

Question 2

A lighter container may lose more heat. The choice depends on whether ease of carrying or thermal performance matters more after both meet the requirements.

Question 3

Choice (1)

Water mass and starting temperature can affect the measured change. Holding them fixed helps compare the designs.

Question 4

The design must meet the mass requirement to be feasible. A strong thermal result does not remove that requirement.

Comparing Thermal Containers

Question 5

Choice (1)

P and Q are within both limits. R is too heavy and S exceeds the cost limit.

Question 6

Q has mass 390 g and cost $15, satisfying both limits. Its 4.0 °C drop is smaller than the 6.0 °C drop of the other feasible design, P.

Question 7

6.0 °C − 4.0 °C = 2.0 °C.

Question 8

Choice (1)

P remains below the mass limit and costs $14. Q costs $15, and R is too heavy.