Checking a Warm Surface With Two Thermometers

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

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Question 1

Choice (1)

The contact readings are both 60 °C.

Question 2

The contact readings show the same temperature, while the infrared signals differ. The surface finishes can change the signal at that temperature, so the infrared signal alone does not support the claim.

Question 3

The signals should be the same. The detector now sees the same patch finish at the same temperature on both blocks.

Question 4

Measure the surface temperatures near both patches with matched contact thermometers during the infrared readings. Agreement checks that the temperature was held the same while the finish changed.