Checking Two Probe Tips in an Indent Test

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

Checking Two Probe Tips in an Indent Test

Question 1

Choice (1)

P experiences 12/3 = 4 N/mm², while Q experiences 12/6 = 2 N/mm².

Question 2

The forces match, but P is tested at twice the pressure because its tip has half the area. The tests do not separate a material difference from a pressure difference.

Question 3

To reach 4 N/mm² over 6 mm², the force must be 4 × 6 = 24 N.

Question 4

Use the same flat probe tip and force for both panels. Keep another relevant condition fixed, such as the pressing time, panel thickness, or support. After unloading, compare whether a permanent mark remains or measure its depth.