

SMART EXAM RESOURCES
IGCSE PHYSICS ANSWERS[SAMPLE SOLUTIONS]
MAIN TOPIC: MOTION FORCES AND ENERGY
SUB-TOPIC-MEASURING LENGTH

Answer 1

1. Explanation of the correct answer (A: 2.2 cm)

Step 1: Measure the length of the cotton.

The cotton starts at 2.5 cm and ends at 15.5 cm, meaning the total length is:

$$15.5 \text{ cm} - 2.5 \text{ cm} = 13.0 \text{ cm}$$

Thus, the total length of the cotton is 13.0 cm.

Step 2: Calculate the circumference of the pen (distance once round).

The cotton is wound 6 times around the pen, so the circumference (distance once round) is:

$$\text{Circumference} = \text{Total length of cotton} / \text{Number of turns}$$

$$\text{Circumference} = 13.0 / 6 = 2.1667 \approx 2.2 \text{ cm}$$

Therefore, the correct answer is 2.2 cm, which corresponds to option A.