

**SMART EXAM RESOURCES**  
**IGCSE PHYSICS ANSWERS[ SAMPLE SOLUTIONS]**  
**MAIN TOPIC: MOTION FORCES AND ENERGY**

**Answer 9**

**1. Explanation of the correct answer (B: 2.7 cm)**

Step 1: Identify the ruler readings for both ends of the nail.

The left end of the nail is positioned at 1.0 cm.

The right end of the nail is positioned at 3.7 cm.

Step 2: Calculate the length of the nail.

The length is found by subtracting the starting position from the ending position:

$$3.7 \text{ cm} - 1.0 \text{ cm} = 2.7 \text{ cm}$$

Therefore, the correct answer is 2.7 cm, which corresponds to option B.