

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

Answer 7

1. Explanation of the correct answer (A: 13 cm)

Step 1: Identify the starting and final positions.

The can starts rolling at 2 cm and stops at 28 cm, covering a total distance of:

$$28 \text{ cm} - 2 \text{ cm} = 26 \text{ cm}$$

Step 2: Calculate the circumference.

The can rolls over twice, meaning the total rolled distance is twice the circumference:

$$\text{Total distance} = 2 \times \text{Circumference}$$

$$26 = 2 \times \text{Circumference}$$

$$\text{Circumference} = 26 / 2 = 13 \text{ cm}$$

Therefore, the correct answer is 13 cm, corresponding to option A.