

CLASS 4 MATHS - CHAPTER 6 (MEASURING LENGTH)
HIGH-THINKING & LOGICAL REASONING WORKSHEET

Q1. Rohan is using a broken plastic ruler to measure his pencil. The zero mark is broken, so he places one end of the pencil at the 3 cm mark. The other end of the pencil reaches the 14 cm mark. What is the actual length of Rohan's pencil in centimetres?

Q2. Sneha has a decorative border tape that is 25 cm long. She wants to stick this tape along the entire edge of a notice board which is exactly 2 metres long. How many such tape strips will she need to buy to cover the length of the board completely?

Q3. Kabir cuts a 1-metre long string into two pieces. The first piece is 65 cm long. He uses the second piece to form a perfect square shape on his desk. What is the length of each side of the square that Kabir made?

Q4. Aarav travels from his house to school every day. He can choose between three different paths:

- Path A: House -> Library -> School = 3 km 200 m
- Path B: House -> Park -> School = 3050 m
- Path C: House -> Market -> School = 3 km 50 m

Which path is the shortest for Aarav, and what is its distance in metres?

Q5. A rectangular garden boundary is built using identical bricks. Each brick is exactly 20 cm long. If a gardener needs 50 bricks to cover the complete boundary (perimeter) of the garden without any gaps, what is the total perimeter of the garden in metres?

Q6. Meera has two ribbons. The blue ribbon is 1 m 40 cm long, and the red ribbon is 85 cm long. She ties them together with a knot. If 5 cm of length from each ribbon is lost inside the knot while tying them, what is the final total length of the tied ribbon?

Q7. Four friends ran a long jump race. Their jumping distances were recorded:

- Amit: 2 m 15 cm
- Bobby: 250 cm
- Chayan: 2 m 5 cm
- Deepak: 205 cm

Two of these friends jumped the exact same distance. Identify the two friends and convert their jumping distance into metres and centimetres.

Q8. Diya wants to fence a triangular park near her house. The first side of the park boundary is 12 metres long, and the second side is 15 metres long. If

she knows that the total boundary (perimeter) around the park is 40 metres, what is the length of the third side of the park?

Q9. Look at the grid clue: 1 block on the grid sheet = 5 cm in real life.

Riya draws a rectangle on this grid sheet that is 4 blocks long and 2 blocks wide. Find the actual perimeter of Riya's rectangle in centimetres.

Q10. An ant wants to climb a wall that is 1 metre high. Every hour, the ant climbs up 30 cm but slips back down by 10 cm. How many hours will it take for the ant to reach the very top of the 1-metre wall?

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FINAL ANSWER KEY (FOR TEACHERS / VERIFICATION)

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- Ans 1: 11 cm ($14 \text{ cm} - 3 \text{ cm} = 11 \text{ cm}$)
- Ans 2: 8 tape strips ($2 \text{ m} = 200 \text{ cm}$; $200 \div 25 = 8$)
- Ans 3: 8.75 cm (Remaining string = 35 cm; Square side = $35 \div 4 = 8.75 \text{ cm}$)
- Ans 4: Path B and Path C are tied as the shortest path (Both are 3050 metres)
- Ans 5: 10 metres ($50 \times 20 \text{ cm} = 1000 \text{ cm} = 10 \text{ m}$)
- Ans 6: 2 m 15 cm ($140 \text{ cm} + 85 \text{ cm} - 10 \text{ cm lost} = 215 \text{ cm} = 2 \text{ m } 15 \text{ cm}$)
- Ans 7: Chayan and Deepak (Both jumped 205 cm, which equals 2 m 5 cm)
- Ans 8: 13 metres ($40 \text{ m} - 12 \text{ m} - 15 \text{ m} = 13 \text{ m}$)
- Ans 9: 60 cm (Real length = 20 cm, Real width = 10 cm; Perimeter = $2 \times (20+10)$)
- Ans 10: 5 hours (Net gain is 20cm/hr. After 4 hrs, it is at 80cm. In the 5th hour, it climbs 30cm and hits the 110cm mark, touching the 1m/100cm top before slipping).
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