FOMP 10 Chapter 1 Review Pack v1

Short Answer

Use the table of conversion factors to help answer the following questions.

Imperial Unit	SI Unit
1 in.	2.54 cm
1 ft	0.3048 m
1 yd	0.9144 m
1 mi	1.609 km

Level 1-2 Questions

1. What measuring instrument is best for measuring the width of a wood screw?

2. A shoe is 20 cm long. Determine the shoe's length, to the nearest tenth of an inch.

3. What is Canada's official measurement system?

4. What is the United States' official measurement system?

5. The basic unit of length in the SI system is the

6. Which of the four imperial length units listed is the smallest (foot, inch,, mile, yard)?

7. The imperial unit that has approximately the same length as a metre is the

8. This quarter is approximately 2.5 cm wide. Estimate how long the line is using the quarter as a referent.

_____

9. Estimate the imperial measurement of the perimeter of the figure shown below.

10. The flying distance from Dawson City to Whitehorse is 540 km. The distance shown on the map is 4 cm. What is the scale of the map as a ratio in lowest terms?

11. What measuring instrument is best for measuring the length of a soccer field.

Level 3-4 Questions

12. A tire has a diameter of 2 ft. How many times will it rotate in order to roll across a field that is 156 yd long? Round your answer to the nearest tenth, if necessary.

13. Imagine baking a pizza that measures 60 ft in diameter. What would be the pizza's area, to the nearest square foot?

14. Fiona is running a 26 mi marathon. If Fiona can average 8 km/h, how long will it take her to complete the marathon, to the nearest minute?

15. If the total surface area of a cube is 2377 cm^2, what is the surface area of each face of the cube, to the nearest tenth of a square inch?

16. Your dining room measures 9 m by 8 m. You have found the perfect carpet for the room, but it is sold in square yards. To the nearest hundredth, how many square yards do you need?

17. It is 851 km from Whitehorse to Inuvik. How long would it take to fly from Whitehorse to Inuvik in a de Havilland Beaver at a speed of 143 mph, if you did not have to stop to refuel?
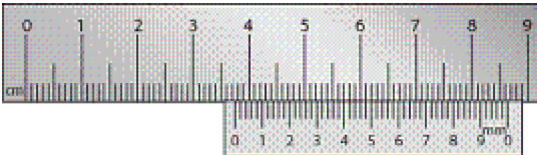
18. Monica is putting a rectangular patio in her yard. Patio stones come in squares measuring 1 ft by 1 ft. She wants the dimensions of the patio to be 7 stones by 7 stones. What will the area of the patio be, to the nearest hundredth of a square metre?

19. Jennifer is 9 in. taller than her sister. If Jennifer is 145 cm tall, how tall is her sister, to the nearest centimetre?

20. Sam has to remove some dead branches from a tree. The tree's branches start approximately 5 m from the ground. Sam stands 1.8 m tall. He has a ladder 2.6 m long. Will Sam be able to use his ladder to trim the branches? Explain your thinking, including any assumptions that you make.

21. Erin jogs 11 times around the block each morning to stay fit. The block measures 696 ft by 348 ft.
   a) What is the perimeter of the block?
   b) How many yards does Erin jog each morning?

22. Ellie wants to build a fence around her rectangular garden. The garden measures 130 ft by 65 ft.
   a) What is the perimeter of the garden in feet? in yards?
   b) If fencing costs $12.00/yd, determine the cost of the fence.

23. Lori wants to laminate a rectangular poster that measures 9 ft by 6 ft.
   a) What is the area of the poster in square feet?
   b) What is the area of the poster in square yards?
   c) The store charges $1.65/yd^2 for lamination. How much will it cost to laminate the poster?

24. Examine the visual below.
   a) What length is this caliper measuring?
   b) Explain how you made your reading.

Level 5-6 Questions

25. Raj measures the distance from his house to Jacob's house using a yardstick. He finds that the distance equals exactly 169 yd. If he walks at a constant rate of 1 m/s, how soon will he get back home, to the nearest second?
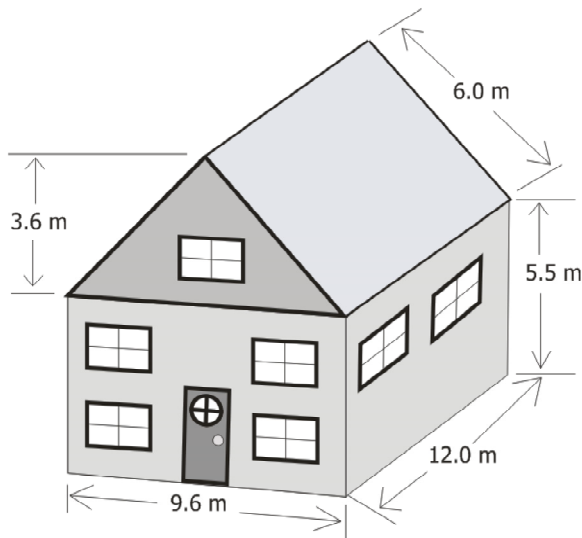
26. The carpet Caleigh has chosen for her new recreation room costs $8.50 per square metre. The room measures 14 ft by 19 ft. To the nearest dollar, how much will it cost Caleigh to carpet this room?

27. A computer game disk with the handbook needs a box 19 cm by 14 cm by 1.5 cm in size. What is the total amount of plastic wrapping needed to cover the entire box if 66 cm² is needed to allow for the overlapping at the edges?

Level 7-8 Questions

28. The surface area of the walls, roof, doors, and windows of a house all have different effects on heat loss. In the house pictured below, determine the surface area of each of the parts (walls, roof, windows, and doors), as well as the total surface area of the house.

windows = 80 cm x 60 cm each
doors = 205 cm x 82 cm each
back of the house is identical to the front
sides of the house are identical to each other