Worksheet #4

APPLICATION - LINES, LINE SEGMENTS, AND RAYS

MeandMath
TM
BELIEVE YOURSELF

Learning goal: Students will distinguish between lines, line segments, and rays, identify their properties (endpoints, length, direction), and apply using mathematical vocabulary.

Neighbors Priya and Rohan are setting up solar lamps along a straight 24-meter walkway from the park entrance to the fountain.

1. The 24-meter walkway represents what geometric object?

2. If lamps are placed every 4 meters, how many gaps are created?

3. Including both ends, how many lamps are needed for 4-meter spacing?

4. Each lamp costs ₹60. What's the total cost for 7 lamps?

5. A spotlight at the entrance shines toward the fountain and beyond. What geometric term describes this light beam?

6. Two lamp posts stand side by side without tilting. What's their geometric relationship?

7. A lamp post stands upright to the walkway. What angle does it form?

8. If Priya reduces spacing to 3 meters, how many lamps are needed?

9. Another walkway crosses the main path. What geometric term applies?

10. If Priya and Rohan place lamp posts every 2 meters along the 24-meter walkway, how many lamp posts are needed in total (including both ends)?

Worksheet #4 (Answers)

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Learning goal: Students will distinguish between lines, line segments, and rays, identify their properties (endpoints, length, direction), and apply using mathematical vocabulary.

Neighbors Priya and Rohan are setting up solar lamps along a straight 24-meter walkway from the park entrance to the fountain.

1. The 24-meter walkway represents what geometric object?

A line segment.

2. If lamps are placed every 4 meters, how many gaps are created?

$$\frac{24}{4} = 6$$ **6 gaps.**

3. Including both ends, how many lamps are needed for 4-meter spacing?

6 + 1 = 7 Lamps

4. Each lamp costs ₹60. What's the total cost for 7 lamps?

7 x ₹60 = ₹420

5. A spotlight at the entrance shines toward the fountain and beyond. What geometric term describes this light beam? **A ray**

6. Two lamp posts stand side by side without tilting. What's their geometric relationship?

Parallel lines.

7. A lamp post stands upright to the walkway. What angle does it form?

90° Perpendicular

8. If Priya reduces spacing to 3 meters, how many lamps are needed?

$$\frac{24}{3} = 8$$ **→ 8+1 = 9 Lamps**

9. Another walkway crosses the main path. What geometric term applies?

Intersecting lines

10. If Priya and Rohan place lamp posts every 2 meters along the 24-meter walkway, how many lamp posts are needed in total (including both ends)? $\frac{24}{2} = 12$ **→ 12+1 = 13 Lamp posts**