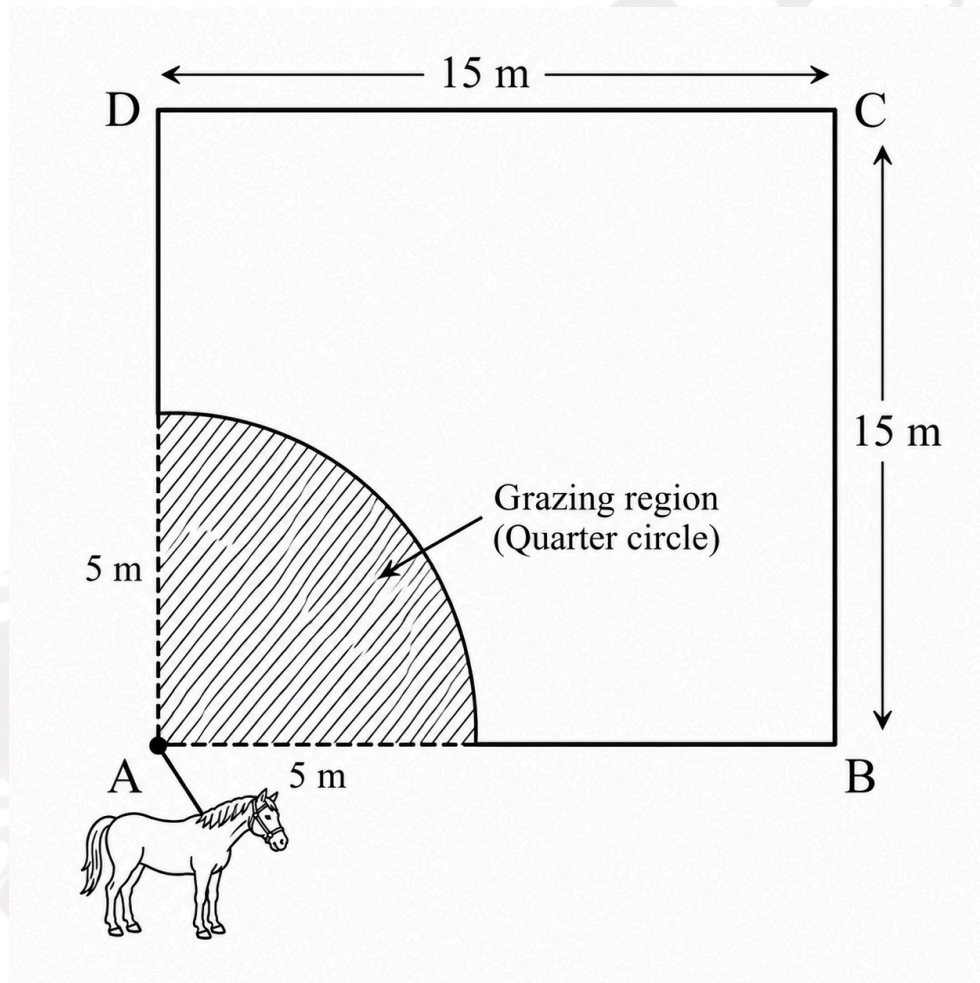


Class 10 Mathematics - Areas Related to Circles

Name: _____

Date: _____

Advanced Worksheet 3



Questions

1. Find the area grazed by the horse.
2. If the rope length becomes 10 m, find the new grazing area.
3. Find the increase in grazing area.
4. What geometric figure is formed by the grazing region?
5. What fraction of a complete circle is the grazing region?
6. Why is only a quarter circle formed?

Answer Key

1. Area = $(1/4) \times 3.14 \times 5^2 = 19.625 \text{ m}^2$
2. Area = $(1/4) \times 3.14 \times 10^2 = 78.5 \text{ m}^2$
3. Increase = $78.5 - 19.625 = 58.875 \text{ m}^2$
4. Quadrant
5. $1/4$
6. The horse is tied at a corner of the square field.