

ANSWERS

AREA OF COMPOUND SHAPES

Instructions: Read each problem carefully, divide the compound shape into simpler geometric figures, calculate the area of each section, and add or subtract areas as needed to find the total or remaining area.

- a) A plaza has a square shape with sides of 40 m, but in the center there is a circular fountain with a radius of 10 m. What is the area of the plaza without the fountain?

Answer:

Square: $40 \times 40 = 1,600 \text{ m}^2$

Circle: $\pi r^2 = 3.14 \times 10^2 = 314 \text{ m}^2$

Remaining Area: $1,600 - 314 = 1,286 \text{ m}^2$



- b) A rectangular court measures 28 m by 15 m. At each end there is a semicircle with a radius of 7.5 m. What is the total area of the court?

Answer:

Rectangle: $28 \times 15 = 420 \text{ m}^2$

Two Semicircles: $2 \times \frac{1}{2} \pi r^2 = \pi r^2 = 3.14 \times 7.5^2 = 176.63 \text{ m}^2$

Total Area: $420 + 176.63 = 596.63 \text{ m}^2$



- c) A heliport is formed by a circle of radius 15 m with a rectangle in the center measuring 20 m by 10 m. What is the total area of the heliport?

Answer:

Circle: $\pi r^2 = 3.14 \times 15^2 = 706.5 \text{ m}^2$

Rectangle: $20 \times 10 = 200 \text{ m}^2$

Total Area: $706.5 + 200 = 906.5 \text{ m}^2$



How Did You Do? 😊 😐 😞