

## 83. Working with $\pi$ (Pi) in Calculations

### Practice Questions

1. Approximate  $\pi$  to 3 decimal places.
2. Find the circumference of a circle with radius = 7 cm using  $\pi \approx 3.14$ .
3. What is the area of a circle with diameter = 10 cm?
4. Solve  $\pi \times 5^2$ .
5. A circle has an area of  $\pi \times 9^2$ . What is its area?
6. Find the circumference of a circle with diameter = 14 cm.
7. Calculate the area of a circle with a radius of 6 cm.
8. Find the radius of a circle if its circumference is 31.4 cm.
9. What is the diameter of a circle with an area of  $\pi \times 25$ ?
10. Solve  $\pi \times 8^2 - \pi \times 6^2$ .

### Scenario Questions

1. A pizza has a diameter of 12 inches. Find its area.
2. A tyre has a radius of 30 cm. Find its circumference.
3. A circular tablecloth has a diameter of 2m. Find its area.
4. A running track has a circular section with a radius of 40m. Find its circumference.
5. A satellite dish is 1.5m in radius. What is its surface area?
6. A clock face has a diameter of 24 cm. Find its circumference.
7. A round pond has a radius of 3m. Find its area.
8. A cyclist rides along a circular path with a diameter of 20m. How far do they travel in one full lap?
9. A circular trampoline has a radius of 2.5m. Find its area.
10. A circular plate has an area of  $\pi \times 16$ . What is its radius?

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### Practice Questions

1. 3.142
2. 43.96 cm ( $2 \times 3.14 \times 7$ )
3. 78.5 cm<sup>2</sup> ( $3.14 \times 5^2$ )
4. 78.5 ( $3.14 \times 25$ )
5. 254.34 cm<sup>2</sup> ( $3.14 \times 81$ )
6. 43.96 cm ( $3.14 \times 14$ )
7. 113.04 cm<sup>2</sup> ( $3.14 \times 36$ )
8. 5 cm ( $31.4 / (2 \times 3.14)$ )
9. 10 cm ( $2 \times \sqrt{25}$ )
10. 87.92 ( $3.14 \times 64 - 3.14 \times 36$ )

### Scenario Questions

1. 113.04 in<sup>2</sup> ( $3.14 \times 6^2$ )
2. 188.4 cm ( $2 \times 3.14 \times 30$ )
3. 3.14 m<sup>2</sup> ( $3.14 \times 1^2$ )
4. 251.2 m ( $2 \times 3.14 \times 40$ )
5. 7.065 m<sup>2</sup> ( $3.14 \times 1.5^2$ )
6. 75.36 cm ( $3.14 \times 24$ )
7. 28.26 m<sup>2</sup> ( $3.14 \times 9$ )
8. 62.8 m ( $3.14 \times 20$ )
9. 19.625 m<sup>2</sup> ( $3.14 \times 6.25$ )
10. 4 cm ( $\sqrt{16}$ )

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