MATC9_Ch01.1_KeyConcepts_4 Circumference of a Circle Worked Example

Example: Find the circumference of a circle

a) with a radius of 10 cm.

b) with a diameter of 30 cm.

Solution: The circumference of a circle is calculated using the formula $C = \pi d$ or $C = 2\pi r$.

a) In this example $r = 10$.

$$C = 2\pi(10)$$
$$= 62.8 \text{ cm}$$

The circumference is 62.8 cm.

b) In this example $d = 30$.

$$C = \pi(30)$$
$$= 94.2 \text{ cm}$$

The circumference is 94.2 cm.

Practice:

1. Find the circumference of a circular golf green with a radius of 15 m.

2. A circular table with a diameter of 1.2 m is going to be painted. Find the length of masking tape needed to protect the trim around the circumference of the table.

Answers: 1. 94.2 m 2. 3.77 m