

**Context**

A park designer has mapped three points on a Cartesian grid to mark the corners of a triangular garden:

- A(0, 0)
- B(6, 0)
- C(0, 8)

Use the distance formula to find each side length, then the total perimeter.

Distance formula:  $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

**Questions**

1. Find the length of  $AB$ . Show your working.
2. Find the length of  $BC$ . Show your working.
3. Find the length of  $CA$ . Show your working.
4. Find the total perimeter of  $\triangle ABC$ . Give your answer to 1 decimal place and include units.