Context

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

- A(-4, 2)
- B(3, 7)
- C(6, -1)

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.

   Extension: The map uses a scale of 1 unit = 1.5 m. Convert your perimeter to metres.