# Contents

# 1 The Distance Between Points

## Points on Horizontal or Vertical Lines

1. Calculate the distance between the points $(-7, -3)$ and $(16, -3)$.

# 1 The Distance Between Points

## The Distance Formula

2. A is the point $(-2, 4)$ and $B(3, 1)$. Calculate the length of the line AB.

# 1 The Distance Between Points

## The Distance Formula

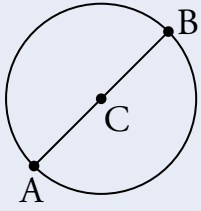
3. Calculate the distance between the points $\left(\frac{1}{2}, -\frac{15}{4}\right)$ and $(-1, -1)$.

## 2 The Midpoint Formula

1. Calculate the midpoint of the points $(1, -4)$ and $(7, 8)$.

## 2 The Midpoint Formula

2. In the diagram below, $A(9, -2)$ lies on the circumference of the circle with centre $C(17, 12)$, and the line AB is the diameter of the circle. Find the coordinates of B.



## 3 Gradients

1. Calculate the gradient of the straight line shown in the diagram below.