

Distance between Coordinate Points

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

BRONZE

Find the distance between the following pairs of coordinates:

- a) (2, 5) and (10, 8)
- b) (6, 4) and (0, 9)
- c) (5, 9) and (12, 2)
- d) (3, 6) and (-2, -2)
- e) (12, -5) and (0, 5)

SILVER

1. The vertices of a quadrilateral DEFG are D(3, -2), E(0, -3), F(-2, 3) and G(4, 1).
 - a) Find the length of each side of the quadrilateral.
 - b) What type of quadrilateral is DEFG?

2. Show that the triangle formed by the points (-3, -2), (2, -7) and (-2, 5) is isosceles.

GOLD

1. Calculate the area of the right angled triangle formed by the points A (1, 3), B (2, 5) and C (5, 1).

2. A triangle has one vertex at (3,3), a second at (5,7) and the third is 6 units vertically above the midpoint of the first two coordinates.

Find the area and perimeter of the triangle.