

Q Distance between two Points and Mid-Points

- 10 (a)** P is the point $(-5, 3)$ and Q is the point $(2, -1)$.

Find the coordinates of the mid-point of PQ .

(..... ,) [2]

- 8** A is the point $(-3, 5)$ and B is the point $(5, 2)$.

Find the coordinates of the midpoint of the line AB .

(..... ,) [2]

- 3** A is the point $(0, 7)$ and B is the point $(-2, 1)$.
 M is the mid-point of AB .

Find the coordinates of M .

(..... ,) [2]

- 5 Point A has coordinates $(-3, 2)$.
Point B has coordinates $(5, -4)$.

(a) Find the mid-point of AB .

(.....) [2]

(b) Find the length of AB .

..... [3]

- 9 A is the point $(5, -5)$ and B is the point $(9, 3)$.

(a) Find the coordinates of the midpoint of AB .

(.....) [2]

(b) Find the length of AB .

..... [3]

16 A is the point $(5, 7)$ and B is the point $(9, -1)$.

(a) Find the length AB .

..... [3]

10 The point A has coordinates $(2, 9)$ and the point B has coordinates $(5, 3)$.

Find the length of AB .

Give your answer in surd form.

..... [3]

8 A is the point $(-2, 4)$ and B is the point $(7, 1)$.

Find the length of AB giving your answer in its simplest surd form.

..... [4]

3 A line, l , joins point $F(3, 2)$ and point $G(-5, 4)$.

(a) Calculate the length of line l .

..... [3]

(c) A point H lies on the y -axis such that the distance $GH = 13$ units.

Find the coordinates of the two possible positions of H .

(.....,) and (.....,) [4]

9 A is the point $(0, 2)$, B is the point $(3, 3)$ and C is the point $(4, 0)$.

(a) Determine if triangle ABC is scalene, isosceles or equilateral.
You must show all your working.

[4]