

Worksheet 2015-10 EL-00006(1)

(1) Calculate the mid-point of each of the following lines through the given points:

(a) $A(2 ; 6)$ and $B(4 ; 4)$

(b) $C(-2 ; 0)$ and $D(-2 ; 2)$

(c) $E(-1 ; 3)$ and $F(2 ; -3)$

(d) $G(0 ; -6)$ and $H(7 ; 1)$

(e) $I(-7 ; -7)$ and $J(1 ; 1)$

(f) $K(5 ; 1)$ and $L(11 ; 1)$

(2) A(-2 ; -1) , B(-1 ; -4) , C(3 ; -2) and D(2 ; 1) form the vertices of a quadrilateral.

(a) Determine the mid-points of the diagonals AC and BD.

(b) What do you notice from the answers in (a)?

(c) Which kind of quadrilateral is ABCD? Motivate.

[illegible]

(3) P(-2 ; 5) and Q(6 ; 7) lie on the circumference of a circle. PQ is a diameter of the circle.

(a) Calculate the coordinates of the circle's centre.

(b) Calculate the length of the radius of the circle, rounded off to the nearest integer.

[illegible]