

Answers to Revision questions in Coordinate

Geometry

① $AD = 3\sqrt{5}$ units

② (a) $-\frac{3}{2}$, $3x + 2y - 17 = 0$

(b) $C(6, \frac{1}{2})$

(c) $y = \frac{2}{3}x + \frac{19}{3}$

③ (a) $3\sqrt{2}$

(b) $\sqrt{2}$

(c) (i) $x^2 - 2x(k+1) + 2k^2 - 7 = 0$

(ii) $k = 4$ or $k = -2$

(iii) tangent to the circle at these values of k

④ (a) $C(1, 4)$

(b) $PC = 5$

(c) $(x-1)^2 + (y-4)^2 = 25$

⑤ (a) $AB_{\perp}$: $4x - 2y + 3 = 0$

$AC_{\perp}$: $4x + 10y - 11 = 0$

(b) $(-\frac{1}{6}, \frac{7}{6})$

⑥ (a) $r = 5$, $A(1, 2)$

(b) $P(5, -1)$

$Q(4, 2)$