③ $A(2,-2)$, $B(7,3)$, $C(11,-1)$, $D(6,-6)$

let $P(x_1, y_1)$ be midpt of AC

$\therefore x_1 = \frac{2+11}{2}$, $y_1 = \frac{-2-1}{2}$

$= \frac{13}{2}$ $= -\frac{3}{2}$

$\therefore P(\frac{13}{2}, -\frac{3}{2})$

let $Q(x_2, y_2)$ be midpt of BD

$x_2 = \frac{7+6}{2}$, $y_2 = \frac{3+(-6)}{2}$

$= \frac{13}{2}$ $= -\frac{3}{2}$

$\therefore Q(\frac{13}{2}, -\frac{3}{2})$

$\because$ P, Q coincide

$\therefore$ diagonals of $\square ABCD$ bisect each other

$AC = \sqrt{(11-2)^2 + (-1+2)^2}$

$= \sqrt{92+12}$

$= \sqrt{82}$

$BD = \sqrt{(6-7)^2 + (-6-3)^2}$

$= \sqrt{(-1)^2 + (-9)^2}$

$= \sqrt{1+81}$

$= \sqrt{82}$

$\therefore AC = BD$

$\square ABCD$ is a rectangle

④ $A(-3,-14)$, $B(a,-5)$,

$AB = 9$ units

$\Rightarrow AB^2 = 9^2$

$(a+3)^2 + (-5+14)^2 = 9^2$

$a^2 + 9 + 6a + 81 = 81$

$\Rightarrow a^2 + 6a + 9 = 81 - 81$

$\Rightarrow a^2 + 3a + 3a + 9 = 0$

$\Rightarrow a(a+3) + 3(a+3) = 0$

$\Rightarrow (a+3)(a+3) = 0$

$\Rightarrow a+3 = 0$, $a+3 = 0$

$\Rightarrow a = -3$, $a = -3$

$\therefore a = -3$