

④  $A(5, -2), B(6, 4), C(7, -2)$       ⑤  $A(3, 4), B(6, 7)$

$$AB = \sqrt{(6-5)^2 + (4+2)^2}$$

$$= \sqrt{1^2 + 6^2}$$

$$= \sqrt{1+36}$$

$$= \sqrt{37}$$

$$BC = \sqrt{(7-6)^2 + (-2-4)^2}$$

$$= \sqrt{1^2 + (-6)^2}$$

$$= \sqrt{1+36}$$

$$= \sqrt{37}$$

$$CA = \sqrt{(5-7)^2 + (-2+2)^2}$$

$$= \sqrt{(-2)^2 + 0^2}$$

$$= \sqrt{4}$$

$$= \sqrt{2 \times 2}$$

$$= 2$$

$\therefore CA + BC \neq AB$

and  $AB = BC$

$\therefore$  vertices of isos.  $\Delta$

$$C(9, 4), D(6, 1)$$

$$AB = \sqrt{(6-3)^2 + (7-4)^2}$$

$$= \sqrt{3^2 + 3^2}$$

$$= \sqrt{9+9}$$

$$= \sqrt{18}$$

$$= 3\sqrt{2}$$

$$BC = \sqrt{(9-6)^2 + (4-7)^2}$$

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

$$= \sqrt{9+9}$$

$$= \sqrt{18}$$

$$= 3\sqrt{2}$$

$$CD = \sqrt{(6-9)^2 + (1-4)^2}$$

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

$$= \sqrt{9+9}$$

$$= \sqrt{18}$$

$$= 3\sqrt{2}$$

$$DA = \sqrt{(3-6)^2 + (4-1)^2}$$

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

$$= \sqrt{9+9}$$

$$= \sqrt{18}$$

$$= 3\sqrt{2}$$

$$AC = \sqrt{(9-3)^2 + (4-4)^2}$$

$$= \sqrt{36+0}$$

$$= \sqrt{36} = 6$$

$$BD = \sqrt{(6-6)^2 + (1-7)^2}$$

$$\Rightarrow BD = \sqrt{0^2 + (-6)^2}$$

$$= \sqrt{36}$$

$$= 6$$

$\therefore AB = BC = CD = DA$   
and  $AC = BD$

$\therefore \square ABCD$  is a square