



پاسخ سؤال ۱:

$$x + 65^\circ = 90^\circ$$

$$x = 25^\circ$$

$$x + 110^\circ = 180^\circ$$

$$\Rightarrow x = 70^\circ$$

$$y = 180^\circ - 2 \times 70^\circ = 180^\circ - 140^\circ = 40^\circ$$

پاسخ سؤال ۲:

$$\left. \begin{array}{l} \hat{B}_r + \hat{C} = 90^\circ \\ \hat{A} + \hat{C} = 90^\circ \end{array} \right\} \Rightarrow \hat{B}_r + \hat{C} = \hat{A} + \hat{C} \Rightarrow \hat{B}_r = \hat{A}$$

پاسخ سؤال ۳:

$$\left\{ \begin{array}{l} AC = AB + BC = 13 \\ BD = BC + CD = 18 \end{array} \right. \Rightarrow AB + BC + CD + BC = 13 + 18 \Rightarrow 27 + BC = 31 \Rightarrow BC = 31 - 27 = 4$$

$$AB = AC - BC = 13 - 4 = 9$$

$$CD = BD - BC = 18 - 4 = 14$$

پاسخ سؤال ۴:

$$\left\{ \begin{array}{l} \overline{AB} > \overline{AC} \\ \overline{AC} = \overline{CD} \end{array} \right\} \Rightarrow \overline{AB} > \overline{CD} \quad \left\{ \begin{array}{l} \overline{CD} < \overline{EF} \\ \overline{EF} < \overline{AD} \end{array} \right\} \Rightarrow \overline{CD} > \overline{AD}$$

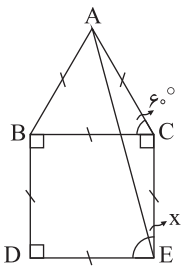
$$\left\{ \begin{array}{l} \overline{AF} = 2\overline{BC} \\ \overline{BC} = \overline{CD} \end{array} \right\} \Rightarrow \overline{AF} = 2\overline{CD} \quad \left\{ \begin{array}{l} \overline{AB} > \overline{CD} \\ \overline{BC} < \overline{CD} \end{array} \right\} \Rightarrow \overline{AB} > \overline{CD} > \overline{BC}$$

پاسخ سؤال ۵:

$$35^\circ \text{ مکمل زاویه } 180^\circ - 35^\circ = 145^\circ \Rightarrow 145^\circ - 55^\circ = 90^\circ$$

$$35^\circ \text{ مکمل زاویه } 90^\circ - 35^\circ = 55^\circ$$

پاسخ سؤال ۶:



$$\triangle ACE \text{ متساوی الساقین است.} \Rightarrow \overline{AC} = \overline{CE} \Rightarrow x = \frac{180^\circ - (90^\circ + 60^\circ)}{2} \Rightarrow x = 15^\circ$$

پاسخ سؤال ۷:

محدب / مقعر / مقعر / محدب