

$$m = \frac{-4}{2} = -2 \quad y = -2x + b$$

$$2 = -1(2) + b \Rightarrow y = -2x + 4 \quad \checkmark$$

$$m = \frac{-1}{m'} \quad y = 2x + b \rightarrow y = 2x - 10$$

$$m' = \frac{-1}{2} \Rightarrow m = 2 \quad 2 = 1(2) - 10$$

$$\tan \frac{\pi}{4} = \tan \theta = m = \sqrt{2} \quad 2 = \sqrt{2}x + 2 - \sqrt{2} \Rightarrow y = \sqrt{2}x + 2 - \sqrt{2} \quad \checkmark$$

$$2x + 2y = \frac{|c-c'|}{2} \Rightarrow 2x + 2y = 0 \quad \checkmark$$

$$\hookrightarrow \frac{c+c'}{2} = 0$$

$$\frac{|c-c'|}{\sqrt{a^2+b^2}} = \frac{9-4}{\sqrt{9+4}} = \frac{5\sqrt{13}}{13} \quad \checkmark$$

$$\frac{|2x+2y-2|}{\sqrt{12}} = \frac{|2x-2y-1|}{\sqrt{12}} \Rightarrow \begin{cases} 2x+2y-2 = 2x-2y-1 \\ 2y-2x-2 = 0 \quad \checkmark \\ 2x+2y-2 = 2y+1-2x \\ 2x+y-4 = 0 \quad \checkmark \end{cases}$$

$$\sqrt{4+4} = 10 \quad \checkmark$$

(الف-4)

(2)

$$\frac{-2+2}{2} = 1 \quad \frac{4-2}{2} = 1 \rightarrow (1,1)$$

$$-y = \frac{2x+1}{4x-2} \quad \checkmark \rightarrow (الف-1)$$

$$y = \frac{-2x+1}{-4x-2} \quad \checkmark \rightarrow (2)$$

$$x = \frac{2y+1}{4y-2} \Rightarrow y = \frac{2x+1}{4x-2} \quad \checkmark \rightarrow (2)$$

$$-y = \frac{-2x+1}{-4x-2} \Rightarrow y = \frac{2x+1}{4x+2} \quad \checkmark \rightarrow (2)$$

$$x-2 = x' \Rightarrow x'+2 = x$$

$$y-2 = y' \Rightarrow y'+2 = y$$

$$y'+2 = \frac{2x'+2}{x'} \Rightarrow y' = \frac{2}{x'} \quad \checkmark$$

$$x-2 = x' \Rightarrow x'+2 = x$$

$$y+2 = y' \Rightarrow y'-2 = y$$

$$y'-2 = \frac{2x'+2}{x'-1} \quad \checkmark \quad y' = \frac{2x'+2}{x'-1}$$

مسئله فرضی دارد با دو هم = برسر B

18, 75

(الف)

(2)

$$m = \frac{\Delta y}{\Delta x} = -4$$

$$y = -4x + b \quad 2 = -1(4) + 18$$

$$\Rightarrow y = -4x + 18 \quad \checkmark$$

$$d = \sqrt{ax^2 + ay^2} = \sqrt{14+9} = 5 \quad \checkmark$$

(2)

$$d = \frac{|ax+by+c|}{\sqrt{a^2+b^2}} = \frac{4+12-2}{5} = 2 \quad \checkmark$$

4- هر نقطه روی تیسگاز دو نقطه از هر دو به

یک عامل است

(2)

$$\tan \alpha = \frac{|m_2 - m_1|}{|1 + m_1 m_2|} = \frac{0}{0} = 1$$

(2)

$$m_2 = 2 \quad m_1 = -2 \Rightarrow \alpha = 90^\circ = \frac{\pi}{2} \quad \checkmark$$

$$\frac{-10-2+2}{2} = -3 \quad (-2, -3) \quad \checkmark$$

$$\frac{-12+2+1}{2} = -3 \quad \checkmark$$

(2)

$$\begin{vmatrix} 2 & 1 & 1 \\ 1 & 2 & 1 \\ 10 & -12 & 1 \end{vmatrix} \Rightarrow \frac{9+24-10+20+39+2}{2} = \frac{94}{2} = 47 \quad \checkmark$$

9- (الف)

(2)

$$\textcircled{1} \quad \begin{array}{l} 3x + 6y = 2 \\ -3x + 12y = -3 \end{array}$$

$$19y = -1 \Rightarrow y = -\frac{1}{19} \quad , \quad x = \frac{42}{19 \times 3} = \frac{14}{19}$$

$$\textcircled{2} \quad x = -\frac{14}{-19} \quad y = \frac{1}{-19}$$

لا حل ؟! - لا
 $\textcircled{1, 2}$