

$$M(x, y)$$

Answer: 15. $\frac{1}{\sqrt{14}}$ is the answer.

$$(0, 2) \rightarrow m \cdot \frac{x}{-1} - 2 \rightarrow y + 2x - 2(n-2) \rightarrow y + 2x - 2n + 4$$

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$$y + 2x - 2n + 4 \rightarrow y + 2x - 2n + 4 \rightarrow y + 2x - 2n + 4 \rightarrow m \cdot \frac{x}{-1} - 2$$

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$$m \cdot \frac{x}{-1} - 2 \rightarrow m \cdot \frac{x}{-1} - 2$$

$$y + 2x - 2n + 4 \rightarrow y + 2x - 2n + 4 \rightarrow y + 2x - 2n + 4 \rightarrow m \cdot \frac{x}{-1} - 2$$

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$$d \cdot \frac{|c-c'|}{\sqrt{a^2+b^2}} \cdot \frac{|-11+11|}{\sqrt{14+14}} \cdot \frac{x}{\sqrt{2}} \cdot \frac{y}{\sqrt{10}} = \frac{y\sqrt{10}}{14}$$



$$1 \quad \frac{|ax+by-c|}{\sqrt{a^2+b^2}} \leq \frac{|a'x+b'y-c'|}{\sqrt{a'^2+b'^2}} \quad (5)$$

$$3 \quad \frac{|x_1-y_1-1|}{\sqrt{9+4}} \leq \frac{|x_1+y_1-2|}{\sqrt{4+9}} \rightarrow |x_1-y_1-1| \leq |x_1+y_1-2|$$

$$5 \quad \rightarrow x_1-y_1-1 \leq x_1+y_1-2 \rightarrow x_1-ay \leq -1$$

$$6 \quad \rightarrow x_1-y_1-1 \leq -x_1-y_1+2 \rightarrow ax+ys \leq 3$$

$$8 \quad \tan \theta \leq \left| \frac{m-m'}{1+mm'} \right| \quad (10)$$

$$10 \quad y \leq x+2 \rightarrow m \leq 1 \quad \rightarrow \left| \frac{a}{-a} \right| \leq 1$$

$$11 \quad y \leq x+2 \rightarrow m \leq 1$$

$$\tan \theta \leq 1 \\ \Rightarrow \theta \leq 45^\circ \\ \theta \leq 135^\circ$$

$$14 \quad d \leq \sqrt{\Delta x^2 + \Delta y^2}, d \leq \sqrt{4^2 + 3^2} = 5 \quad (11) - 4$$

$$16 \quad M\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right) \rightarrow M\left(\frac{-2}{2}, \frac{2}{2}\right) \rightarrow M(-1, 1) \quad (5) (12)$$

$$18 \quad x_G \leq \frac{x_1+x_2+x_3}{3} \leq \frac{2-1-2}{3} \leq \frac{-1}{3} \leq -\frac{1}{3} \quad (13) - 5$$

$$\rightarrow G(-2, -2)$$

$$20 \quad y_G \leq \frac{y_1+y_2+y_3}{3} \leq \frac{1+2-1}{3} \leq \frac{2}{3} \leq \frac{2}{3}$$



$$\begin{array}{c|ccc} -10 & -12 & 1 & \\ \hline -2 & 12 & 1 & \\ \hline 12 & 1 & 1 & \end{array} \quad \begin{array}{l} \text{1- (ج) درین} \\ s^{1/4} (-10 - 12s + 1) + (-2)(9 + 12s - 10) = s^{1/4} (-92) \end{array}$$

$$s - 12 \rightarrow s + 12$$

$$-y s \frac{12n+1}{12n-12} \quad \text{1- (الف) درین} \quad \text{2- (ب) درین}$$

$$y s \frac{-12n+1}{-12n-12} \quad \text{2- (ب) درین}$$

$$x s \frac{12y+1}{12y-12} \rightarrow y s \frac{12n+1}{12n-12} \quad \text{3- (ج) درین}$$

$$-x s \frac{-12y+1}{-12y-12} \rightarrow y s \frac{-12n+1}{-12n-12} \quad \text{4- (د) درین}$$

$$x' s x - 2 \rightarrow x s x' + 2 \rightarrow x s x' + 2 \quad y s \frac{12n+1}{12n-12} \quad \text{5- (الف) 9}$$

$$y' s y - 12 \rightarrow y s y' + 12 \rightarrow y s y' + 12 \quad \text{5- (ب) 5}$$

$$\rightarrow y' s \frac{12(n'+2)+1}{(n'+2)-12} \rightarrow y' s \frac{12n'+25}{n'-1} + 12 \rightarrow y' s \frac{12n'+37}{n'-1}$$

$$x s x' + 12, y s y' + 12 \quad \text{6- (ج) 6}$$

$$\rightarrow y' s \frac{12(n'+2)+1}{(n'+2)-12} \rightarrow y' s \frac{12n'+25}{n'-1} + 12 \rightarrow y' s \frac{12n'+37}{n'-1}$$



