

موضوعات C

المعادلات

خطية

(1)

$$الف) \quad 3x - y = 9 \quad \times 2 \rightarrow \quad 6x - 2y = 18$$

$$x + 2y = -5 \quad \times 1 \rightarrow \quad x + 2y = -5$$

$$5x = 13 \quad \leftarrow \quad 5x = 13$$

$$x = \frac{13}{5}$$

$$\frac{x}{y} = -\frac{2}{1}$$

$$ب) \quad \frac{1}{x} - \frac{1}{y} = -1 \quad \times -d \rightarrow \quad -\frac{d}{x} + \frac{d}{y} = d$$

$$\frac{d}{x} - \frac{d}{y} = -1 \quad \times 1 \rightarrow \quad \frac{d}{x} - \frac{d}{y} = -1$$

$$\frac{1}{y} = 1$$

$$\frac{1}{y} = -1 \Rightarrow y = -1$$

$$x = \frac{1}{1}$$

$$\frac{x}{y} = \frac{1}{-1} = -1$$

Subject.....

Day..... Month..... Year.....

(2)

$$a + 1 = -2$$

$$a = -3$$

$$2a + 2b = -4$$

$$b = 0$$

(3)

$$m^2 - 2m = -2 \quad \text{عنه عهه عهه عهه}$$

$$m^2 - 2m + 2 = 0 \Rightarrow m = 1 \pm \sqrt{1-2} = 1 \pm i$$

$$(m+1, 4) \neq (2, 4)$$

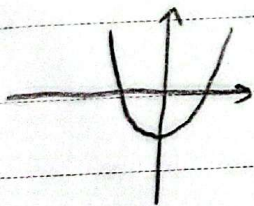
$$(2, 4) \neq (2, 4)$$

$$((m+1), 4) \neq (2, 4)$$

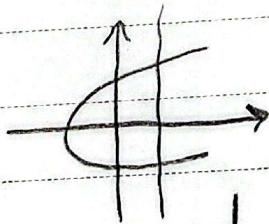
$$(2, 4) \neq (2, 4)$$

عنه عهه

$$y = x^2 - a$$

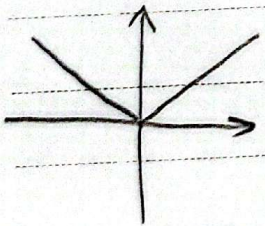


✓ (ب)



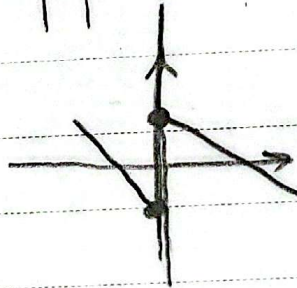
X (ا)

(5)



✓ (ب)

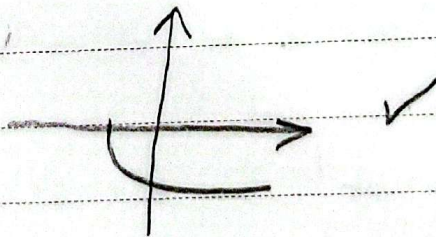
$$y = |x|$$



X (ج)

(6)

ا) $y = -\sqrt{x+1}$



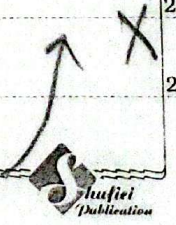
$$y_1 = -y_2$$

ب) $x = \frac{y}{\sqrt{1-y^2}}$

$$\frac{y_1}{1-y_1^2} = \frac{y_2}{1-y_2^2}$$

$$y_1^2 - y_2^2 = y_2^2 - y_1^2$$

$$y_1 (y_1 - y_2) = y_2 (y_2 - y_1)$$



$$|y| = n \quad \text{if } n=1 \quad \times$$

$$y = \pm 1$$

$$b) \quad y^r + r y^{r-1} + r y = -n^r - n \quad \checkmark$$

$$y_1^r + r y_1^{r-1} + r y_1 + 1 = y_r^r + r y_r^{r-1} + r y_r + 1$$

$$(y_1 + 1)^r = (y_r + 1)^r$$

$$y_1 + 1 = y_r + 1$$

$$y_1 = y_r$$

②

$$\frac{(n+r)^r + 1}{(n+r)^r + r} = f(n)$$

$$\left. \frac{r+1}{r+r} = \frac{\varepsilon}{r} = \frac{r}{r} \right]$$

$$a^r + a + b = r a - a \quad \text{①}$$

$$-1 - a + b = -r - a$$

$$b = -r$$

$$a \Rightarrow -1 - a - r = -\varepsilon$$

$$a = +1$$

Subject.....

Day..... Month..... Year.....

$$a^r + m - r - r^r a + 1 = \dots$$

$$n^r - r n + 1 = \dots$$

$$n^r + n^r - n^r - r n + 1 = \dots$$

$$n^r(n+1) - (n+1)^r = (n+1)(n^r - n - 1)$$

\square = ∞ \rightarrow ∞

$$a + b = r a$$

$$b = a$$

$$a - \cancel{r} b + 1 = r a$$

$$1 = r a$$

$$\boxed{\frac{1}{r} = a}$$

$$f(m) = m = \frac{r m^r - a m + c + 1}{b m + r}$$

$$m(b m + r) = r m^r - a m + c + 1$$

$$b m^r + r m \Rightarrow \left. \begin{array}{l} a = -r \\ b = r \\ c = -1 \end{array} \right\} \xrightarrow{+} a + b + c = 0$$