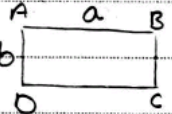


طرح المسائل على ما يلي

$$S_r = m \times L_r \Rightarrow \frac{S_r}{S_1} = \frac{1 + \sqrt{\Delta}}{r} = \frac{r + r\sqrt{\Delta}}{1} = \frac{r + r\sqrt{\Delta}}{\Delta}$$

5  $\rightarrow a^r + b^r = \frac{r + r\sqrt{\Delta}}{r} a^r \Rightarrow b^r = \frac{r + r\sqrt{\Delta}}{r} a^r \Rightarrow \frac{a^r}{b^r} = \frac{r}{r + r\sqrt{\Delta}} = \frac{1}{1 + \sqrt{\Delta}} = \frac{\sqrt{\Delta} - 1}{r}$

$$ra - r = -\sqrt{ra^2 + fa} \rightarrow 9x^r - 12a + r = ra^r + fa \Rightarrow \sqrt{a^r} - 12a + r = 0$$

$$a^r - 12a + r = 0 \rightarrow (a - 12)(a - r) = 0 \rightarrow a = r, \frac{r}{\sqrt{}}$$

$$a = r \rightarrow r = -12 \text{ غير ممكن}$$

10 $a = \frac{r}{\sqrt{}} \rightarrow \frac{-1}{\sqrt{}} = \frac{-1}{\sqrt{}} \checkmark \rightarrow \frac{9/4}{r/\sqrt{}} = \frac{9}{r}$

$$x \geq -1 \leftarrow \frac{\sqrt{x+1}}{r - \sqrt{x-1}} - \frac{\sqrt{x+1}}{\sqrt{x-1}} = \frac{x-1}{\sqrt{x-1}} \rightarrow (\sqrt{x+1}) \left(\frac{1}{\sqrt{x-1} + r} - \frac{1}{r - \sqrt{x-1}} \right) = \frac{\sqrt{x-1} \sqrt{x-1}}{\sqrt{x-1}}$$

$$\sqrt{x+1} \left(\frac{1}{\sqrt{x+1} + r} - \frac{1}{r - \sqrt{x-1}} \right) = \sqrt{x-1} \rightarrow x > 1 \rightarrow \text{انجبا}$$

15 $-r\sqrt{x+1} = 1 - x \rightarrow rx + r = x^r - r(x+1) \Rightarrow x^r - rx + 94 = 0$

$$x = \frac{r \pm \sqrt{19r}}{r} \rightarrow x = 12 + \sqrt{r} \rightarrow \text{كيب، غير ممكن}$$

$$\frac{1}{\sqrt{r-x} + r} + \frac{1}{\sqrt{r-x} - r} = \frac{r-x}{\Delta \sqrt{r-x}} \Rightarrow \frac{1}{t+r} + \frac{1}{t-r} = \frac{t^r}{\Delta t}$$

20 $t \neq 0 \rightarrow \frac{t-r+t+r}{t^r - \Delta} = \frac{t}{\Delta} \Rightarrow \frac{rt}{t^r - \Delta} = \frac{t}{\Delta} \rightarrow \frac{r}{t^r - \Delta} = \frac{1}{\Delta} \rightarrow t^r - \Delta = 10$

$$t^r = 10 \rightarrow t = \pm \sqrt{10} \rightarrow t = \sqrt{10} = \sqrt{r-x} \Rightarrow x = -12 \text{ غير ممكن}$$

$$\frac{1}{x^r} + \frac{1}{(1-x)^r} = \frac{14}{9} \Rightarrow \frac{r x^r - r x + 1}{x^r (x-1)^r} = \frac{14}{9} \Rightarrow x^r - x = t \rightarrow \frac{rt+1}{t^r} = \frac{10}{9}$$

25 $\frac{t^r + rt + 1}{t^r} = \frac{14}{9} \rightarrow \left(\frac{t+1}{t} \right)^r = \left(\frac{14}{9} \right)^r \left\{ \begin{array}{l} \frac{t+1}{t} = \frac{14}{9} \rightarrow t = \frac{r}{9} \\ \frac{t+1}{t} = \frac{-14}{9} \rightarrow t = \frac{-r}{9} \end{array} \right.$

$$\left. \begin{array}{l} x^r - x = \frac{r}{9} \Rightarrow x^r - x - \frac{r}{9} = 0 \rightarrow \Delta, S = \frac{-b}{a} = 1 \\ x^r - x = \frac{-r}{9} \Rightarrow x^r - x + \frac{r}{9} = 0 \rightarrow \Delta, S = \frac{-b}{a} = 1 \end{array} \right\} \frac{0}{-}$$

Subject:

Year: Month: Day: ()

Page: ()

$$\sqrt{x + \sqrt{-x^2 + rx + r^2 - 1}} + \sqrt{x^2 + \sqrt{-x^2 + rx - 1}} = x + r \quad -v$$

$$-x^2 + rx + r^2 - 1 \geq 0 \rightarrow x^2(r-x) - r^2(r-x) \geq 0 \rightarrow (x^2 - r^2)(r-x) \geq 0$$

$$\rightarrow (x-r)(x+r)(r-x) \geq 0$$

-r	r	r
+	-	+

$(-\infty, -r] \cup [r, \infty)$ I

$$5. -x^2 + rx - 1 \geq 0 \rightarrow x^2 - rx + 1 \leq 0 \rightarrow (x-r)(x-r) \leq 0$$

r	r
+	-

$[r, r]$ II

I ∩ II = {r} → √r + √r = 2

$$y = |x+r| + |x-1| \rightarrow \begin{cases} y = r+1 & x \geq 1 \\ y = r & -r \leq x \leq 1 \\ y = -r-1 & x \leq -r \end{cases} \quad -\Delta$$

$$10. \quad ry + x = 14 \Rightarrow y = \frac{-1}{r}x + \frac{14}{r}$$

$x \geq 1 \rightarrow r+1 = \frac{-1}{r}x + \frac{14}{r} \rightarrow rx + r = -x + 14 \Rightarrow x = r$	$\left. \begin{aligned} -r \leq x \leq 1 &\rightarrow r = \frac{-1}{r}x + \frac{14}{r} \rightarrow -x + 14 = r \Rightarrow x = 14 - r \\ x \leq -r &\rightarrow -r-1 = \frac{-1}{r}x + \frac{14}{r} \Rightarrow -4x - r = r + 14 \Rightarrow \Delta x \end{aligned} \right\}$	$y = \Delta$
--	---	--------------

$$A \left| \begin{matrix} r \\ \Delta \end{matrix} \right. \quad B \left| \begin{matrix} -r \\ v \end{matrix} \right. \rightarrow \sqrt{r^2 + \Delta} = \sqrt{r} = r\sqrt{1}$$

$x = \Delta$
 $y = v$

$$15. \quad y = \sqrt{x^2 - rx + r} = |x-r| \rightarrow \begin{cases} x-r & x \geq r \\ -x+r & x \leq r \end{cases} \quad -9$$

$$y = \frac{1}{r}x + r \quad \left\{ \begin{aligned} x \geq r &\Rightarrow x-r = \frac{1}{r}x + r \rightarrow x = r, y = r \\ x \leq r &\Rightarrow -x+r = \frac{1}{r}x + r \rightarrow x = 0, y = r \end{aligned} \right.$$

$$20. \quad C = \begin{vmatrix} r \\ 0 \end{vmatrix} \quad A \left| \begin{matrix} \Delta \\ 4 \end{matrix} \right. \quad B \left| \begin{matrix} 0 \\ r \end{matrix} \right. \rightarrow \begin{cases} BC = -x+r \Rightarrow y+x-r=0 \\ \overline{AH} = \frac{|4\Delta - r|}{\sqrt{r}} = \frac{1r}{\sqrt{r}} = \sqrt{r} \\ \overline{BC} = \sqrt{r} \end{cases} \quad \frac{4\sqrt{r} \times \sqrt{r}}{r} = 14$$

$$\frac{1}{x} + \frac{1}{x+9} = \frac{1}{r} \Rightarrow \frac{r+x+9}{x^2+9x} = \frac{1}{r} \Rightarrow x^2+9x = r(x+9) \rightarrow x^2 - rx - 9r = 0$$

$$25. \quad (x-3r)(x+\Delta) = 0$$

3r, -Δ

حل 3r ← حل 3r
حل Δ ← حل Δ

30

