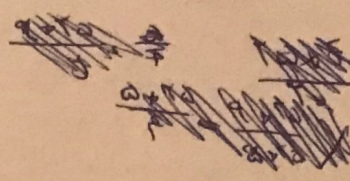


$$\frac{a}{y} = \frac{a}{r} \quad \frac{a+a}{y} = \frac{a+ay}{a+ay}$$

$$\frac{a+a}{r} = \frac{a+ay}{a+ay}$$



1

7am + 6m = 9m

$$a^2 + 7a - 8m = 0 \quad (a-2)(a-1) \quad a = 2, 1$$

$$\frac{\sqrt{a^2+y^2}}{a} = \frac{m}{y} \quad x^2 = y^2 \sqrt{a^2+y^2} \quad \frac{a^2}{y^2} = a^2+y^2 \quad \frac{a^2}{y^2} = \frac{a^2+y^2}{y^2}$$

2

$$(r-a)^2 = r^2 + a^2$$

$$9a^2 + 15m = r^2 + 15m$$

$$9a^2 - 14m + 15 = 0$$

$$(a-2)(14a-5)$$

$$a = 2, \frac{5}{14}$$

$$\frac{a}{a+1} = \frac{5}{9} \Rightarrow \frac{5}{a+1} = \frac{5}{9} \Rightarrow a = 2$$

$$\sqrt{a^2 + 15} = 0 \quad \frac{5}{\sqrt{1-12}}$$

3

$$\frac{1}{b+5} = \frac{1}{5-b} = \frac{t}{a}$$

$$\frac{-2b}{5-b} = \frac{t}{a} \quad -10b = 5b - t^2$$

$$t^2 - 15b = 0 \quad b(t^2 - 15) = 0$$

$$t = 0 \quad t = \pm \sqrt{15}$$

$$\sqrt{15-950} = 0 \quad \sqrt{15-950} = 19 \quad a = 19$$

حل اول

19

$$\frac{2\sqrt{a+1} - \sqrt{a^2-1} - \sqrt{a^2-1} - 8\sqrt{a+1}}{9-(a-1)} = \frac{a-1}{\sqrt{a-1}}$$

پاسخ نهایی

حل دوم

$$-\sqrt{a^2-1} = (10-a)\sqrt{a-1}$$

$$-2\sqrt{a+1} = 10-a \quad \frac{5}{9} \Rightarrow a^2 + 100 - 20a = 10a + 25$$

$$a^2 + 94 - 30a = 0 \quad 24 - \sqrt{14} <$$

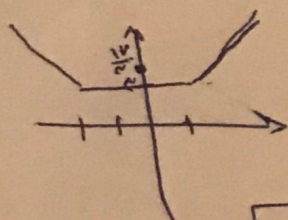
Δ = 195

$$\frac{x^2 + 1 - x^2}{x^2(1-x^2)} = \frac{140}{9} \quad 9 \text{ bil } 140 \text{ bil } 140 \text{ bil } 140$$

$$S = \frac{-(-140)}{140} = 1 = x_1 + x_2$$

6

7



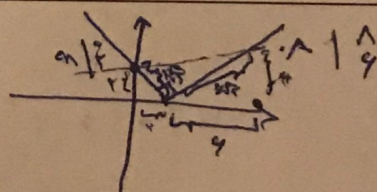
$$\sqrt{(a-(-f))(b-(v-c))} = \sqrt{180}$$

$$\begin{cases} x > 1 & \begin{matrix} yg + xz = 18 \\ xm - y = -1 \end{matrix} & \begin{matrix} yg = 18 \\ y = 2 \end{matrix} & \checkmark & A/B \\ -2 \leq x \leq 1 & \begin{matrix} yg \geq 18 \\ yg = 18 \end{matrix} & \begin{matrix} xm = 18 \\ xm = 1 \end{matrix} & \times & A \\ x < -2 & \begin{matrix} yg + xm = 18 \\ xm - y = 1 \end{matrix} & \begin{matrix} xm = 18 \\ y = 1 \end{matrix} & \checkmark & B \end{cases}$$

8

9

$$\begin{cases} x > 5 & \begin{matrix} y = \frac{1}{2}x = 5 \\ x - y = 4 \end{matrix} & \begin{matrix} y = 5 \\ y = 9 \end{matrix} & \checkmark \\ x \leq 5 & \begin{matrix} y - \frac{1}{2}x = 5 \\ xy = 5 \end{matrix} & \begin{matrix} x = 0 \\ y = 2 \end{matrix} & \times \end{cases}$$



$$\frac{4\sqrt{2} \times \sqrt{5}}{2} = 15$$

9

$$\frac{1}{x} + \frac{1}{x-9} = \frac{1}{4}$$

$$\frac{5x-9}{x(x-9)} = \frac{1}{4}$$

$$5x-11 = x^2-9x$$

$$x^2 - 14x + 11 = 0$$

$$(x-14)(x-1) = 0$$

$$x = 14 \quad x = 1$$

$$x = 14 - 13$$

$$14 - 13 = 1$$

10