

$$\frac{f(a-b)^2}{f_a} = \frac{12+b^2}{f} = 4 \Rightarrow b^2=12 \rightarrow b=\pm 2\sqrt{3}$$

(۲) (۱)

الف) $t^2 + 2t + 3 = 0 \rightarrow \Delta < 0$ صحیح که منفرد نمی شود (۲) (۲)

ب) $x^4 - 14x^2 + 14 + 2x^2 - 1 - 1 = 0 \Rightarrow t^2 - 12t + 13 = (t-1)(t+1)$ $x^2 = -1$ غلط $x^2 = 13 \rightarrow x = \pm \sqrt{13}$ (۲) (۲)

$a, a+2 \rightarrow 2a+2=4 \rightarrow a=1, B=3 \checkmark P=\frac{m}{f}=3 \rightarrow m=12 \checkmark$ (۲) (۳)

$B=2a-f \rightarrow 2a-f=2 \rightarrow a=2, B=0 \rightarrow \frac{B}{f} = \frac{m-1}{f} = 0 \rightarrow m=1 \checkmark$ (۲) (۴)

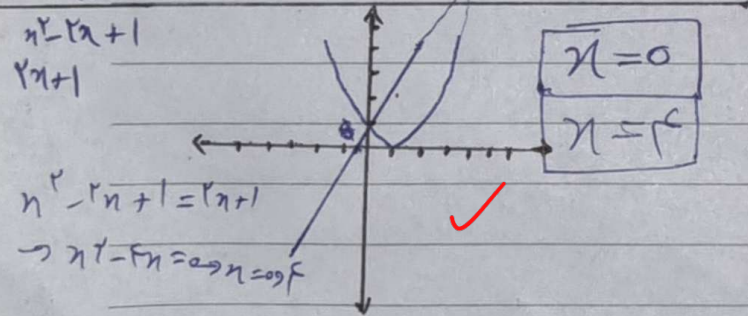
$a \neq \frac{1}{a} \rightarrow P = \frac{m^2-2}{-m} = 1 \rightarrow (m+2)/(m-1) = 0 \rightarrow m = -2 \rightarrow \Delta = 0 \times$ $m=1 \rightarrow \Delta > 0 \checkmark$ (۲) (۵)

$a = \frac{B}{f} \rightarrow P = \frac{f}{B} = 3 \rightarrow B = \frac{f}{3} \Rightarrow a = \frac{9}{f} \rightarrow S = m = \frac{9}{f} + \frac{f}{3} = \frac{f^2+9}{3f}$ (۲) (۶)

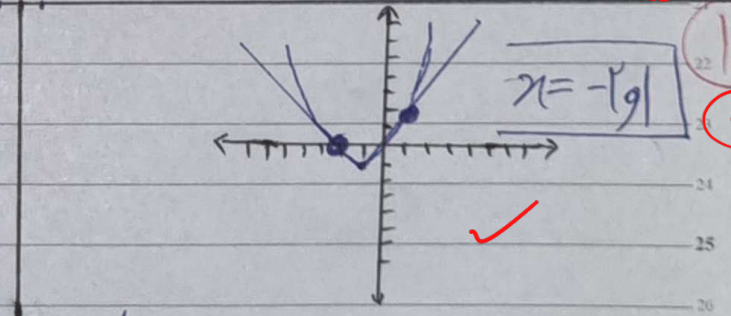
$a, 2a \rightarrow 3a=f \rightarrow a=1, B=3 \rightarrow P=m=3 \checkmark$ (۲) (۷)

$aB=2 \rightarrow B=\frac{2}{a} \rightarrow a^2+1 = a^2+B^2 = S^2 \Rightarrow P=\frac{S}{P=2} \rightarrow 2^2+3^2-4^2=3 \checkmark$ (۲) (۸)

$\frac{-\Delta}{f_a} = \frac{-2\omega_{00}}{-f_0} = 9 \checkmark \omega / -10t^2 + \omega_0 t = 0 \rightarrow t=0 \text{ و } \omega \rightarrow$ (۲) (۹)



$x^2 - 2x + 1 \rightarrow x=0 \rightarrow y=1$
 $x^2 - 2x + 1 \rightarrow y=0 \rightarrow x=-\frac{1}{p}$
 $x^2 - 2x + 1 \rightarrow \frac{-b}{2a} = 1, \frac{-\Delta}{f_a} = 0$
 $x=0 \rightarrow y=1$
 $y=0 \rightarrow x=1, \Delta=0$



$|x+2| \rightarrow x=0 \rightarrow y=2/y=0 \rightarrow x=-2$
 $x^2 + 2x \rightarrow \frac{-b}{2a} = -1, \frac{-\Delta}{f_a} = -1$
 $x=0 \rightarrow y=0$
 $y=0 \rightarrow x=0, -2$