

يا: دهيم بـ B
تكليف 14

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$$y = -u^2 + 6u + 12 \rightarrow -\frac{\Delta}{2a} = 12 \rightarrow -\Delta = 28a \rightarrow -(6^2 - 4(-1)(12)) \rightarrow -6^2 - 12 = 28(-1) \rightarrow 6^2 + 12 = 28 \rightarrow b = \pm 2$$

الف) $f(u) = u^2 + 2u^2 + 3 \rightarrow \Delta < 0 \rightarrow$ ر.ج. ندارد

$$ب) f(u) = (u - u^2)^2 - 2(u - u^2) - 10 \rightarrow u - u^2 = t \rightarrow t^2 - 2t - 10 \rightarrow (t - 1)(t + 3) = 0$$

$$t = 1 \rightarrow u - u^2 = 1 \rightarrow u^2 - u + 1 = 0 \rightarrow \Delta = 1 - 4 = -3 < 0 \rightarrow$$

$$t = -3 \rightarrow u - u^2 = -3 \rightarrow u^2 - u - 3 = 0 \rightarrow u = \pm \sqrt{13}$$

$$u^2 - 13u + m = 0 \quad a = b + 2 \quad P = \frac{c}{a} = \frac{m}{c} = 6(b + 2) \rightarrow \frac{m}{c} = 6(1 + 2) \rightarrow m = 18$$

$$S = b + 2 + b \rightarrow 2b + 2 = \frac{13}{2} = -\frac{b}{a} \rightarrow 2b + 2 = \frac{13}{2} \rightarrow b + 1 = \frac{13}{4} \rightarrow b = \frac{9}{4}$$

$$u^2 - 13u + 18 = 0 \rightarrow u^2 - 13u + 12 = 0 \rightarrow (u - 12)(u - 1) = 0$$

$$\textcircled{3} = \frac{12}{2} = \frac{6}{1} \quad \textcircled{4} = \frac{1}{2}$$

$$3u^2 - 5u + m - 1 = 0 \quad 2a - b = 2 \rightarrow b = 2a - 2 \rightarrow S = -\frac{b}{a} = \frac{5}{2a} = 2 \rightarrow 2a - 2 + a = \frac{5}{2} \rightarrow 3a - 2 = \frac{5}{2} \rightarrow 3a = \frac{9}{2} \rightarrow a = \frac{3}{2}$$

$$P = \frac{c}{a} = \frac{m - 1}{\frac{3}{2}} = 0 \rightarrow m = 1$$

$$2(2) - b = 2 \rightarrow b = 2$$

$$-u^2 + 5u + m^2 - 2 = 0 \rightarrow \frac{c}{a} = 1 \rightarrow \frac{m^2 - 2}{-m} = 1 \rightarrow m^2 - 2 = -m \rightarrow m^2 + m - 2 = 0 \rightarrow (m - 1)(m + 2) = 0$$

$$\textcircled{1} \quad \textcircled{2}$$

$$u^2 - mu + 3 = 0 \rightarrow a + b^2 = 2 \rightarrow a = \frac{2}{b^2} \rightarrow \frac{c}{a} = \frac{3}{\frac{2}{b^2}} = \frac{3b^2}{2} \rightarrow \frac{3}{b} = 2 \rightarrow b = \frac{3}{2} \rightarrow \frac{3}{\frac{3}{2}} = 2 \rightarrow a = \frac{4}{3}$$

$$S = \frac{a}{c} = \frac{1}{\frac{3}{2}} = \frac{2}{3} \rightarrow \frac{2v + 13}{12} = \frac{2}{3} \rightarrow \frac{2v + 13}{12} = \frac{2}{3} \rightarrow m - 13 = \frac{2v + 13}{12} \rightarrow m = \frac{2v + 13}{12} + 13$$

$$u^2 - 9u + m = 0 \quad b = 3a + a \quad S = a + 3u \rightarrow 2a = -\frac{b}{a} \rightarrow 2 \rightarrow a = 1 \rightarrow b = 3 \rightarrow 3 = \frac{c}{a} = m \rightarrow m = 3$$

$$u^2 - 7u + 2 = 0 \quad a^2 + \frac{1}{a^2} = 2 \rightarrow (a + \frac{1}{a})(a^2 + \frac{1}{a^2} - 2) \rightarrow (-\frac{6}{5})(5^2 - 2p - \frac{c}{a})$$

$$7 \times (29 - 2 - 2) \rightarrow \textcircled{301} \quad \textcircled{101}$$

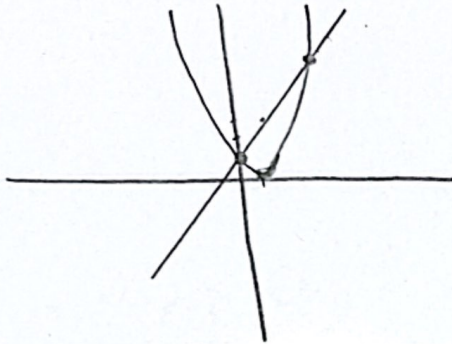
$$h(t) = -10t^2 + 80t + \frac{m}{t} \rightarrow -\frac{b}{2a} = \frac{80}{-20} = -4 \rightarrow -10(\frac{80}{-20})^2 + 80(\frac{80}{-20}) \rightarrow \frac{1280}{2} = 640$$

$$\textcircled{640}$$

$$h = 0 \rightarrow 0 = -10t^2 + 80t \rightarrow t^2 - 8t = 0 \rightarrow t(t - 8) = 0 \rightarrow t = 0 \text{ or } t = 8$$

الف) $(n-1)^2 = 2n+1 \rightarrow \frac{n}{1} \frac{0}{1} \frac{1}{4} \frac{2}{9} \frac{3}{16}$

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ب) $n^2 + 2n = (n+1)^2 - 1$

$(n+1)^2 - 1$

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