

$$r_0 r + r B^r = r(\alpha^r + B^r) + \alpha^r$$

(1)

$$\alpha^r + B^r = (\alpha + B)^r - r\alpha B = 14 - 12\alpha$$

$$r(14 - 12\alpha) + \alpha^r = 14\alpha + 12\sqrt{r} \Rightarrow \alpha < B < 0$$

$$\alpha = -3 - 2\sqrt{r} \quad B = -3 + 2\sqrt{r}$$

$$\alpha^r = (-3 - 2\sqrt{r})^r = 17 + 12\sqrt{r}$$

$$r(14 - 12\alpha) + 17 + 12\sqrt{r} = 14\alpha + 12\sqrt{r}$$

$$\alpha = 1$$

$$\alpha^r = + \Rightarrow +^r - 1 + -\alpha = 0$$

(2)

$$+ = \frac{1 \pm \sqrt{4}}{2} \Rightarrow \text{فقط مقادير صحيحة قبل قسمة البسط}$$

$$\alpha = \pm \sqrt{4}$$

$$S = \sqrt{4} + (-\sqrt{4}) = 0$$

$$r(1 - 3\sqrt{r} + 2\sqrt{r}) = r(1 - \sqrt{r})$$

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



$$\text{① مجموع الجذور } = r_1 + \frac{1}{r} \Rightarrow r_1 + \frac{1}{r}$$

(3)

$$\text{② مجموع الجذور } = r_1 + r_2 = -\frac{1}{r}$$

$$\text{③ مجموع الجذور } = (r_1 + r_2) + 1 = \frac{1}{r} \Rightarrow \frac{a}{r} = \frac{1}{r} \Rightarrow a = 1$$

$$\text{④ ضرب الجذور } = r_1 r_2 = \frac{1}{r^2} = \frac{r}{r^2}$$

$$\text{⑤ ضرب الجذور } = (r_1 + \frac{1}{r})(r_2 + \frac{1}{r}) = r_1 r_2 + \frac{1}{r}(r_1 + r_2) + \frac{1}{r^2} \Rightarrow -\frac{1}{r^2} - \frac{1}{r} + \frac{1}{r^2} = -\frac{1}{r^2}$$

$$\text{⑥ ضرب الجذور } = \frac{b}{r} \Rightarrow \frac{b}{r} = -\frac{1}{r^2} \Rightarrow b = -1$$

$$\left[\frac{-1}{r} \right] = (-1)$$

$$r_0(rB^r + \alpha^r - B) = 17$$

(4)

$$\alpha x^r - \alpha x - b = 0 \Rightarrow \alpha + B = 1$$

$$\alpha^r + B^r = 1 - r\alpha B$$

$$rB^r + \alpha^r = 1 - r\alpha B + B^r \Rightarrow r_0(1 - r\alpha B + B^r - B) = 17$$

$$\alpha = 1 \quad B = -1$$

$$|\alpha - B| = (2)$$

Date:

Sub:

مسئله ۱

$$\textcircled{1} \text{ فرض کنیم } n \text{ و } n+1 \text{ زوج باشند} \Rightarrow n \text{ و } n+1$$

(1)

$$\text{فرض کنیم } n \text{ زوج باشد} \Rightarrow 2n+2 = a+1 \Rightarrow a = 2n+1$$

$$n(n+1) = n^2 + n = a \quad n^2 + 2n = 2n+1 \quad n^2 = 1 \quad n = \pm 1$$

 $n = +1 \checkmark$

$$\textcircled{2} \text{ فرض کنیم } 2k \text{ و } 2k+1$$

$$\text{فرض کنیم } 2k \text{ زوج باشد} \Rightarrow 2k+2 = 2a+1 \Rightarrow a = 2n+1 \Rightarrow \text{جوابی}$$

$$2k+2 = 2n+2 \Rightarrow 2k = 2n+1$$

$$\text{مثلاً } n=1 \Rightarrow a=3$$

$$\textcircled{1} \text{ فرض کنیم } 1 \times 2 = 2$$

$$2 \times 3 = 6$$

$$1-2 = \textcircled{a}$$

(9)

(10)