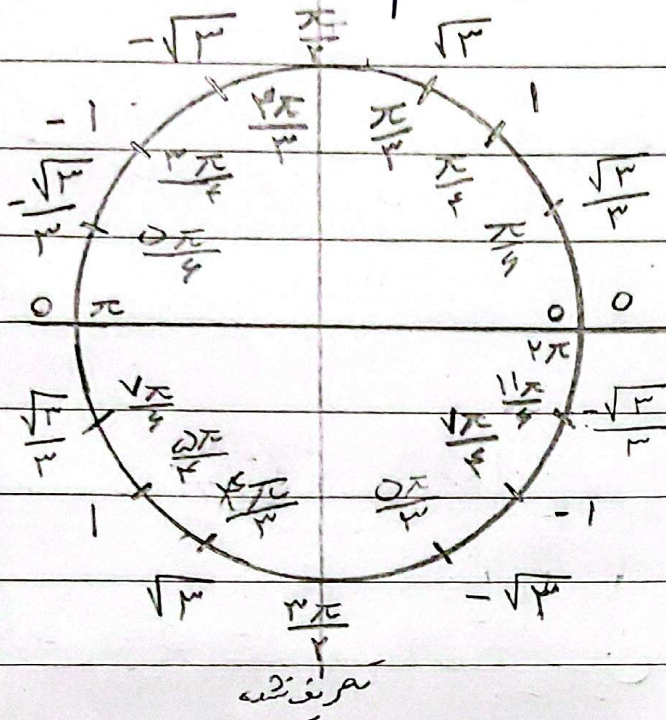


١ - تالیف شماره ٢ ریاضی

پسر عالم معرفت شده



٢ - الف) $\frac{1}{r} + (-1) + 2 \times (-1) = -2/5$

ب) $-(-\frac{\sqrt{r}}{r}) + \frac{\sqrt{r}}{r} - 2 \times (-\frac{\sqrt{r}}{r}) = \frac{5\sqrt{r}}{r}$

ج) $\frac{\sqrt{r}}{r} + 2 \times \frac{\sqrt{r}}{r} - 1(-\frac{\sqrt{r}}{r}) = \frac{4\sqrt{r}}{r}$

د) $\cos(0) + \sin(2\pi \times \frac{1}{r}) = 1 + 1 = 2$

٣ - $n=a \rightarrow n^2 + 4n = 2n + n + 2 \Rightarrow$

$n^2 + n - 2 = 0 \Rightarrow n = -2 \text{ و } 1$
 $n = +1$

$f(1) = n^2 + 4n = 1 + 4 = 5$

P4YCO

DATE:

$$|n+1| \geq 2 \xrightarrow{n \geq -1} n \geq 1 \quad -R$$

$$\xrightarrow{n \leq 1} n \leq -3$$

$$n = -3 \rightarrow |1-b| = a-9 \Rightarrow a+b = 2R$$

$$\text{الف) } n^3 - 2n^2 \neq 0 \Rightarrow n(n-2) \neq 0 \quad -O$$

$$n \neq 0, 2 \quad D_f = R - \{0, 2\}$$

$$\text{ب) } 2n^3 + 2n^2 + 2n + 2 \neq 0$$

$$(2n^2 + 2)(n+1) \neq 0 \Rightarrow n \neq -1$$

$$D_f = R - \{-1\}$$

$$n^2 - 1 \geq 0 \quad n - 2 \geq 0 \quad -\gamma$$

$$n \geq 2$$

$$\frac{-1}{+6} - \frac{1}{-6} \quad (-\infty, -1] \cup [1, \infty) \cap [2, \infty) = [2, \infty)$$

$$\text{ج) } 4 - 2n \geq 0 \quad 4n - 3 > 0$$

$$n \leq 2$$

$$n > \frac{1}{4}$$

$$(-\infty, 2] \cap (\frac{1}{4}, \infty) = (\frac{1}{4}, 2]$$

PAYCO

DATE: _____

$$4n - a \xrightarrow{n=2} 12 - a = 0 \quad a = 12 \quad -V$$

$$b - 3n \xrightarrow{n=2} b - 6 = 0 \quad b = 6$$

$$\frac{b}{a} = \frac{6}{12} = \frac{1}{2}$$

$$\text{الف) } \frac{(n-3)(n+2)}{(n^2-4)(n^2-9)} \geq 0 \quad \begin{array}{ccccccc} & -3 & -2 & 2 & 3 & & -1 \\ + & \frac{1}{0} & - & \frac{1}{0} & - & \frac{1}{0} & + \end{array}$$

$$D_f = (-\infty, -3) \cup (2, \infty) - \{3\}$$

$$\text{ب) } \frac{(n-1)(n^2-n-6)}{(n+1)(n^2+n-6)} \quad \begin{array}{ccccccc} & -3 & -2 & -1 & 1 & 2 & 3 \\ + & \frac{1}{0} & - & \frac{1}{0} & - & \frac{1}{0} & + \end{array}$$

$$D_f = (-\infty, -3) \cup [-2, -1) \cup [0, 2) \cup [3, \infty)$$

$$2[n] \geq 4 \Rightarrow n \geq 2 \quad -9$$

$$2[n] \geq 0 \Rightarrow [n] \geq 0 \quad n \geq 3$$

$$\text{الف) } \frac{n+1}{|n-3|} \geq 0 \Rightarrow \frac{-1}{0} \quad -10$$

$$\frac{4-n}{n^2+2n+4} \geq 0 \quad n \leq 4 \quad D_f = (-\infty, -1] \cup (3, 4]$$

مستقيم

PAYCO

DATE: _____

$$\neg) [n] \geq r \Rightarrow n \geq r$$

$$[n] \leq r \Rightarrow n \leq r$$

$$D_f = \emptyset$$