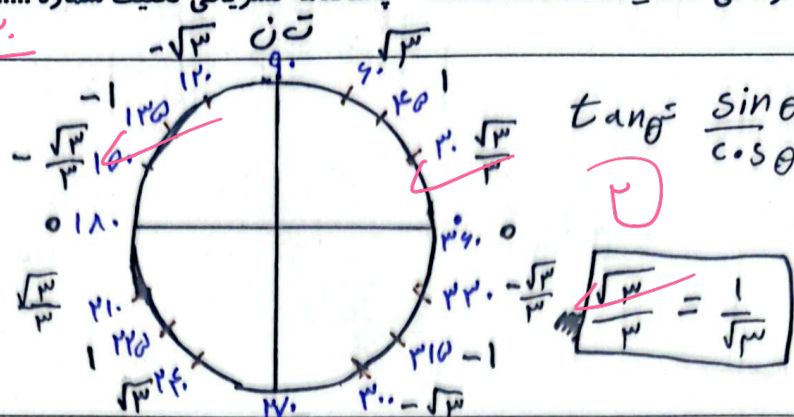


نام و نام خانوادگی آیدرضا مؤذن پاسخنامه تشریحی تکلیف شماره ۲ کلاس یازدهم پسران شعبه A

۲۰. آخرین کالی نوشتار!



$\sin \frac{\pi}{6} = \frac{1}{2}$ $\cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$ $\tan \frac{\pi}{6} = \frac{1}{\sqrt{3}}$ $\frac{1}{2} - 1 + 2(-1) = \boxed{-\frac{5}{2}}$ (الف)

$\cos \frac{5\pi}{6} = -\frac{\sqrt{3}}{2}$ $\sin \frac{5\pi}{6} = \frac{1}{2}$ $\tan \frac{5\pi}{6} = -\frac{1}{\sqrt{3}}$ $\frac{\sqrt{3}}{2} + \frac{1}{2} + \frac{1}{\sqrt{3}} = \boxed{\frac{5\sqrt{3}}{2}}$ (ب)

$\cos \frac{7\pi}{6} = -\frac{\sqrt{3}}{2}$ $\sin \frac{7\pi}{6} = -\frac{1}{2}$ $\tan \frac{7\pi}{6} = \frac{1}{\sqrt{3}}$ $-\frac{\sqrt{3}}{2} - \frac{1}{2} + \frac{1}{\sqrt{3}} = \boxed{-\frac{5\sqrt{3}}{2}}$ (ج)

$\sin \pi = 0$ $\cos(\sin \pi) = \cos 0 = 1$ $\cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$ $1 + 1 = \boxed{2}$ (د)

$a = a \Rightarrow n^2 + 4n = 4n + a + 1$

$a = n \Rightarrow a^2 + 4a = 4a + a + 1$

$(a+1)(a-1) = 0$

$a = 1$
 ~~$a = -1$~~

$1^2 + 4 \times 1 = \boxed{5}$

$2x(-3) - b = a + 2x - 3$ در $x = -3$ دو برقرار نیست

$11 - b = a - 9$

$a + b = \boxed{20}$

$n^3 - 4n^2 \neq 0$ $n^3 - 4n^2 = n^2(n-4)$ (الف)
 $D = R - \{4, 0\}$ $n \neq 0$ $n \neq 4$

$2n^3 + 4n^2 + 2n + 4 = 2(n+2)(n^2+1) \neq 0$ (ب)
 $D = R - \{-2\}$ $n \neq -2$

$$y = \sqrt{x^2 - 1} + \sqrt{x - 2}$$

$$x^2 - 1 \geq 0$$

$$x - 2 \geq 0$$

$$\begin{aligned} x \leq -1 & \text{ or } x \geq 1 \\ x \geq 2 \end{aligned}$$

$$D = [2, +\infty)$$

$$y = \frac{\sqrt{5-2x}}{\sqrt{4x-3}}$$

$$x - 2 \geq 0$$

$$5 - 2x \geq 0$$

$$x \leq 2$$

$$\cap$$

$$x > \frac{1}{2} \Rightarrow \frac{1}{2} < x \leq 2$$

$$D = (\frac{1}{2}, 2]$$

$$P$$

~~$$y = \sqrt{x^2 - 1} + \sqrt{x - 2}$$~~

$$\frac{b}{a} = \frac{4}{12} = \frac{1}{3}$$

$$y = \sqrt{4x - a} + \sqrt{b - 2x}$$

$$\frac{b}{2} = 2 \quad b = 4$$

$$4x - a \geq 0$$

$$b - 2x \geq 0$$

$$\frac{a}{4} = 2 \quad a = 16$$

$$x \geq \frac{a}{4} \cap x \leq \frac{b}{2} = \frac{a}{4} \leq x \leq \frac{b}{2}$$

$$y = \sqrt{\frac{x^2 - x - 6}{x^2 - 13x^2 + 36}}$$

$$x^2 - x - 6 = (x - 3)(x + 2)$$

$$(x)$$

$$x^2 - 13x^2 + 36 = (x^2 - 4)(x^2 - 9)$$

$$P$$

$$(x - 2)(x + 2) \geq 0$$

$$\frac{-3 \quad 2 \quad 3}{+ \quad - \quad + \quad +} \Rightarrow D = (-\infty, -3) \cup (2, 3) \cup (3, +\infty)$$

$$x^2 - 2x^2 - 6x + 6 = (x - 2)(x - 1)(x + 3)$$

$$x^2 + 2x^2 - 6x - 6 = (x - 2)(x + 1)(x + 3)$$

$$\frac{-3 \quad -2 \quad -1 \quad 1 \quad 2 \quad 3}{+ \quad - \quad + \quad - \quad + \quad - \quad +} \Rightarrow D = (-\infty, -3) \cup [-2, -1) \cup [1, 2) \cup [3, +\infty)$$

$$y = \sqrt{2[x] - 4}$$

$$2[x] - 4 \geq 0$$

$$[x] \geq 2$$

$$x \geq 2$$

$$D = [2, +\infty)$$

$$y = \sqrt{2[x] - 0}$$

$$2[x] - 0 \geq 0$$

$$[x] \geq 0$$

$$D = [0, +\infty)$$

$$[x] \geq 3$$

$$x \geq 3$$

$$\frac{x+1}{x-2} \geq \frac{3}{-1+\frac{3}{2}}$$

$$x = -1$$

$$x = 3$$

$$\frac{-1 \quad 3}{+ \quad - \quad +}$$

$$x^2 + 2x + 4 = (x+1)^2 + 3$$

$$x \leq 3 \Rightarrow D = [-1, 3) \cup (3, 4]$$

$$[x] - 4 \geq 0$$

$$\cap$$

$$2 - [x] \geq 0$$

$$[x] \leq 2$$

$$D = \emptyset$$

$$(c)$$