

نام و نام خانوادگی: ... پاسخنانه تشریحی تکلیف شماره ۵ ... کلاس: ... (جمع)

الف) $x=0$ $y^2=-1$ $y=-1$ ✓

ب) $x=\frac{\pi}{4}$ $y(\cos \frac{\pi}{4}=0$ $\frac{\pi}{4} \cos y=0$ $\cos y=0 \rightarrow y=k\pi + \frac{\pi}{2}$ X

ج) $x=1$ $\sqrt{y}=1-y$ $y+\sqrt{y}+1=0$ $(\sqrt{y}-1)^2=0$ $\sqrt{y}=1$ $y=1$ ✓

د) $x(y^2-y)^2+2x+2y=0 \rightarrow x(y^2+2)=y(y^2+2)$ ✓
 $x=y$

الف) $y>0$ $x^2=y$ ✓ تابع زوج

$y<0$ $x^2=y$ $y=\frac{x^2}{-1}$ $\frac{x^2}{-1} \leq \frac{x^2}{4}$ $\frac{5x^2}{4} \geq 0$

ب) $x=0$ $[y]=1$ $1 \leq y < 2$ تابع زوج

$|x-1| \geq 2$ $\begin{cases} x-1 \geq 2 & x \geq 3 \\ x-1 \leq -2 & x \leq -1 \end{cases}$

$2x^2-b=a+2x$ $2x^2-2x=a+b$

$x=1 \rightarrow 1^2=a+b$

$a+b=1$

$-a+bm+u^2 \leq 0$ $\sqrt{a-bm-au^2}$
 $-(2x-b)(x-a)$ $\frac{b}{2}, a, u^2$
 $2x^2-(a+b)x+ah$

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

$-a=ah$ $ab+a=a(b+1)=0$
 $\downarrow$ $\neq 0 \rightarrow b=-1$

$a+c=2|b|$ $-2b=2|b|$

$(-\infty, 2)$ $\frac{2}{\sqrt{a+2b+c}}$
 $a+2b+c=0$ $a=0$
 $2b+c=0$ $c=-2b$

$$\frac{A}{x+b} + a = 0$$

$$p.b \quad D_f = (x, +\infty) \quad y = \sqrt{\frac{x-a}{x+b} + a}$$



$$x+b=0 \quad x=-b \rightarrow \boxed{b=-2}$$

2
9

$$\text{الف) } x^2 - x \geq 0 \quad x(x-1) \geq 0 \quad \frac{-1 \quad 0 \quad +1}{-1 \quad +1 \quad -1} \quad [-1, 0] \cup [1, +\infty)$$

$$\text{ب) } y = \frac{1}{\sqrt{|x|-1}} \quad |x| > 1 \quad x > 1 \cup x < -1 \quad (-\infty, -1) \cup (1, +\infty)$$

7

$$\text{الف) } |x| - [x] \neq 0 \quad |x| = [x] \quad x \in \mathbb{Z} \cap x \geq 0 \quad \text{عدد اعداد نسبية، اعداد غير صحيحة نسبية}$$

$$\text{ب) } \sqrt{x} + \sqrt{y} = 4 \quad \sqrt{y} = 4 - \sqrt{x} \quad \sqrt{y} \geq 0 \quad D_f = [0, 16]$$

1/4

$$\frac{1}{\sqrt{2x-\frac{1}{2}} + \sqrt{2x+\frac{1}{2}}} > \frac{1}{2} \quad \sqrt{2x-\frac{1}{2}} + \sqrt{2x+\frac{1}{2}} < 2 \quad \sqrt{2x+\frac{1}{2}} > 2 - \sqrt{2x-\frac{1}{2}} \quad \sqrt{2x+\frac{1}{2}} > 1 \quad 2x+\frac{1}{2} > 1 \quad 2x > \frac{1}{2} \quad x > \frac{1}{4}$$

9

$$c-b=? \quad \frac{a+10}{y} - \frac{a}{y} = \underline{\underline{\frac{10}{y}}}$$

$$D_f(b, c] \quad \sqrt{1 - \log(x-a)} \quad \frac{a}{y} < x \leq \frac{a+10}{y} \quad 1 > \log(x-a) \quad 10 > x-a \quad x < \frac{10+a}{y} \quad \log \rightarrow x-a > 0 \quad x > a$$