

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۲ کلاس: جیب:

الف) $a^2 = a^2 + 3$

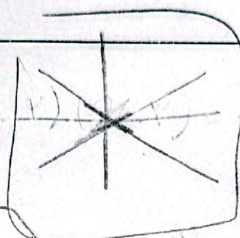
$a^2 - 4a + 3 = 0$

$(a-1)(a-3) = 0$

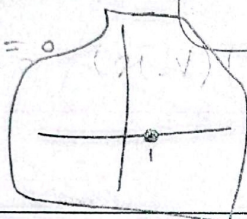
$a = 1$
 $a = 3$

1

الف) $|y| = |x|$ $y = \pm x$



ب) $|y| + \sqrt{x-1} = 0$



$|y| = 0$ $\sqrt{x-1} = 0$
 $y = 0$ $x = 1$

2

الف) $|y-1| = \sqrt{x-2}$ $x=3$ $|y-1| = 1$ $y-1 = \pm 1$ $y = 0, 2$

ب) $y^2 - y = x^2$ $x=0$ $y(y-1) = 0$ $y = 0, 1$

ج) $\sin^2 x + \cos^2 y = 1$ $x=0$ $\sin^2 0 = 0$ $\cos^2 y = 1$ $y = 0, \pi$

د) $\sin^2 x + \cos^2 y = 1$ $x=\pi$ $\sin^2 \pi = 0$ $\cos^2 y = 1$ $y = 0, \pi$

3

الف) $|y-1| = -x^2 + 4x$

$y-1 = \pm(-x^2 + 4x)$

$y = -x^2 + 4x + 1$
 $y = x^2 - 4x + 1$

$x \in \mathbb{R}$

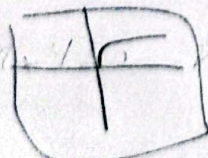
ب) $y^2 + 3x = 0$

$y^2 = -3x$

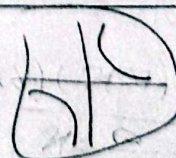
$y = \pm \sqrt{-3x}$

4

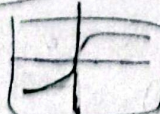
الف) $y = 3x$



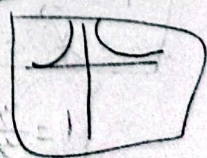
ج) $y = \frac{1}{2}x$



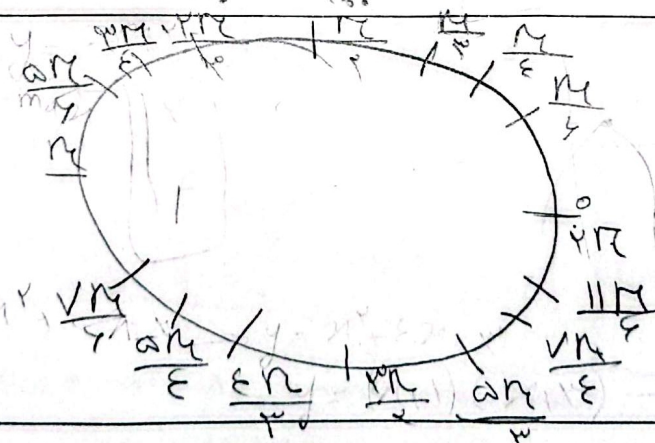
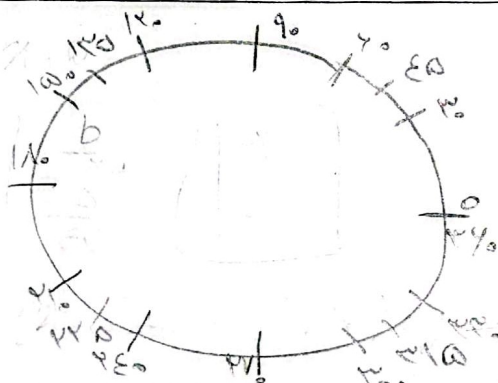
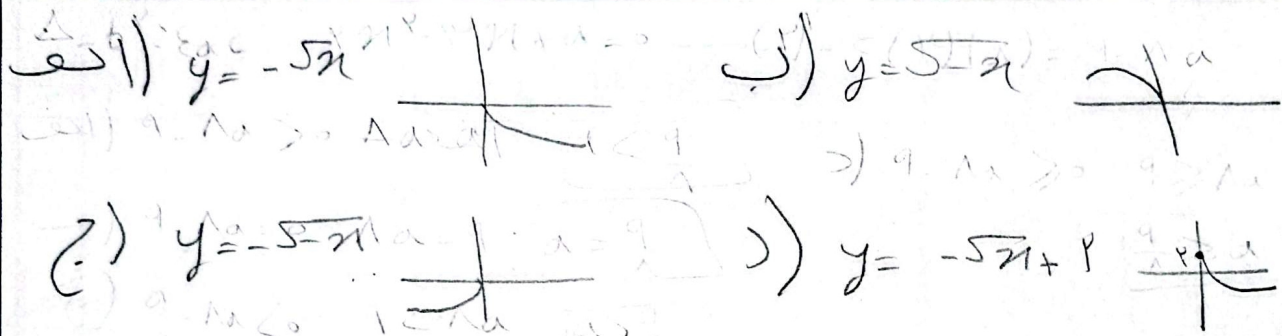
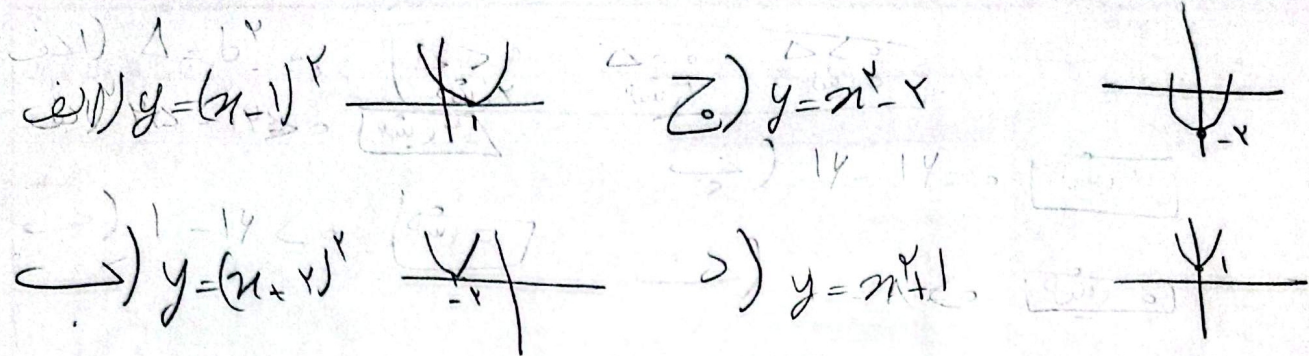
ب) $y = 3x$



د) $y = \frac{1}{2}x$



5



الف) $\cos 120^\circ = \boxed{-\frac{1}{2}}$ ب) $\sin 150^\circ = \boxed{\frac{1}{2}}$

ج) $\cos \frac{5\pi}{3} = \boxed{\frac{1}{2}}$ د) $\sin \frac{11\pi}{6} = \boxed{-\frac{1}{2}}$