

دپ $y = \sqrt{x f(x)}$ دست $y = f(x)$	$x f(x) \geq 0$ $x = -2, 0, 2$ <table border="1"> <tr> <td>-2</td> <td>0</td> <td>2</td> <td>0</td> </tr> <tr> <td>-</td> <td>+</td> <td>-</td> <td>+</td> </tr> </table> عروض نقطه درج $D_f = [-2, 0] \cup [2, 0]$	-2	0	2	0	-	+	-	+	1
-2	0	2	0							
-	+	-	+							
دپ $y = \sqrt{\frac{-x}{f(x)}}$ دست	$\frac{-x}{f(x)} \geq 0$ $f(x) \neq 0$ $x = -2, 0, 2$ <table border="1"> <tr> <td>-2</td> <td>0</td> <td>2</td> <td>0</td> </tr> <tr> <td>-</td> <td>+</td> <td>-</td> <td>+</td> </tr> </table> عروض نقطه درج $D_f = (-2, 0) \cup (0, 2)$ $(-2, -1, 1)$ عدد صحیح	-2	0	2	0	-	+	-	+	2
-2	0	2	0							
-	+	-	+							
$f(x) - 2f(2) = x^2 - 2x + 2$ دست $f(-2) = 0$	$x = 2 \rightarrow f(x) - 2f(2) = 4 - 4 + 2$ $f(2) = 2$ $x = -2 \rightarrow f(-2) - 2f(2) = 4 + 4 + 2$ $f(-2) = 10$	3								
$f(x) = \begin{cases} x - \sqrt{x+2} & x > 2 \\ 2x+2 & x \leq 2 \end{cases}$ دست $f(f(0)) + f(f(1))$	$f(0) = 0 - \sqrt{2} = 2 \rightarrow f(2)$ $f(1) = 2 + 2 = 4 \rightarrow f(4)$ $f(2) = 4 + 2 = 6 \rightarrow 2 + 2 = 4$	4								
$f(x) = ax^2 - bx + 2 \rightarrow$ تابع دست $f(x-1) - f(x) = 4x + 2 \rightarrow PP = 1R$ $a - b = 2$	$f(x-1) \rightarrow a(x-1)^2 - b(x-1) + 2$ $= ax^2 - 2ax + a - bx + b + 2$ $\rightarrow f(x) = ax^2 - bx + 2$ $(-2a + a + b) = (4x + 2) \rightarrow a = -2 \rightarrow a + b = 2$	5								

$f(n) = n^r - r n + 1$ $\frac{r f(r) + f(-1)}{f'(r)}$	حل $f(r) \rightarrow 9 - 9 + 1 = 1$ $f(-1) \rightarrow 1 + r + 1 = 0$ $f(r) \rightarrow r - 9 + 1 = (-1)^r = 1$ $\frac{r + 0}{1} = 1$ ٦
$f(n) = \begin{cases} r n + 1 & n \geq r \\ n^r & n < r \end{cases}$ $\frac{r f(r) - r f(-r)}{f'(r)} = ?$	حل $f(r) \rightarrow 1r + 1 = 1r$ $f(-r) \rightarrow (-r)^r = r$ $f(r) \rightarrow r + 1 = 1$ $\frac{r \times 1r - 1}{r} = \frac{r^2 - 1}{r}$ ٧
$f = \{(r, r), (r, r), (r, 1), (1, r)\}$ $\frac{f(f(r)) - f(f(r))}{f(1) - r}$	حل $f(r) \rightarrow 1$ $f(1) \rightarrow r$ $\frac{r - r}{r - r} \rightarrow \frac{0}{0}$ $f(r) \rightarrow r$ $f(r) \rightarrow r$ $f(1) \rightarrow r$ ٨
$f(n) = \frac{n^r + r n + 9}{n^r + r n + 0}$ $f(P(\sqrt{r-1})) = ?$	حل $\frac{n^r + r n + 9}{n^r + r n + 0} = \frac{(n+r)^r + 0}{(n+r)^r + 1} \quad f(r) = \frac{r+1+9}{r+1+0}$ $n = \sqrt{r-1}$ $\frac{r+0}{r+1} = \frac{1}{r} = 1 \quad \left(\frac{r+1}{r} \right)$ ٩
$f(n) = n^r + \frac{1}{n^r}$ $(f(\sqrt{n}))^r - f(n) = ?$	حل $f(\sqrt{n}) = n + \frac{1}{n} \rightarrow (n + \frac{1}{n})^r = n^r + r n^{r-1} (\frac{1}{n}) + \frac{1}{n^r}$ $= n^r + r + \frac{1}{n^r} - f(n) = 2$ ١٠