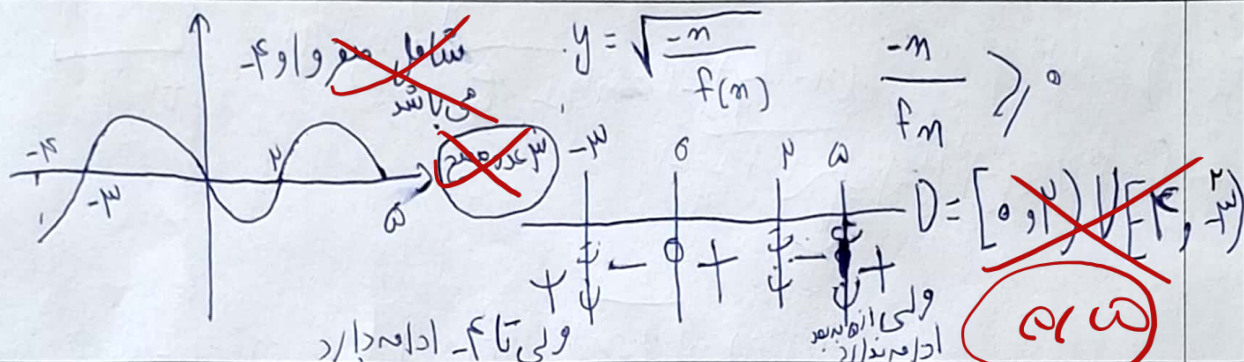
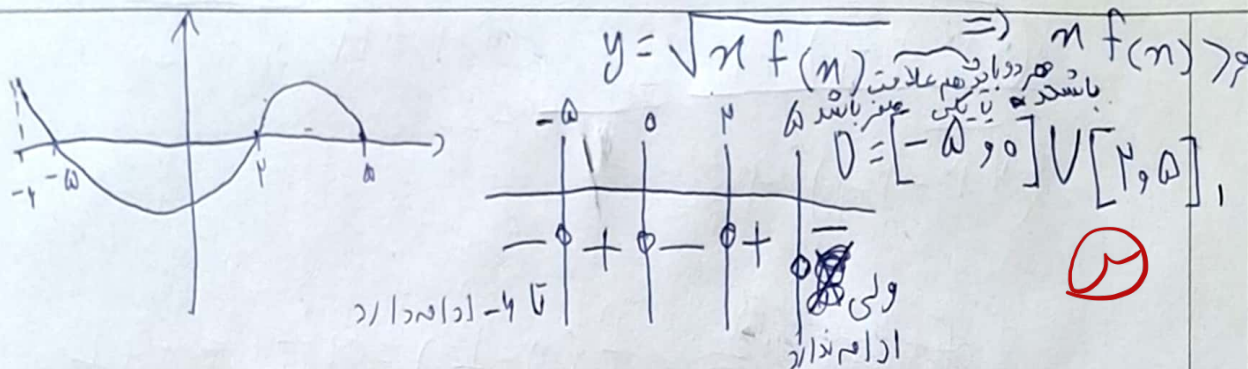


۱۷/۵

نام و نام خانوادگی آزمون پاشنامه تشریحی تکلیف شماره کلاس A



$f(x) - 2f(2) = x^2 - 2x + 4$

$f(-2) = ?$

$x=2 \Rightarrow f(2) - 2f(2) = 4 - 4 + 4 = 2 \Rightarrow f(2) = -2$

$f(-2) + 2x(2) = -f(2) \Rightarrow f(-2) = 10$

۱/۵

$f(x) = \begin{cases} x - \sqrt{x+4} & ; x > 4 \\ 2x+3 & ; x \leq 4 \end{cases}$

$f(f(5)) + f(f(1)) = f(5 - \sqrt{9})$

$+ f(2+3) = f(2) + f(5) = 7 + 5 - \sqrt{9} = 9$

۵

$a-b = ?$ $(-3-5 = -8)$

$f(n-1) - f(n) = 4n+2$

$f(n) = an^2 - bn + 2$

$a(n-1)^2 - b(n-1) + 2 - an^2 + bn - 2 = 4n+2$

$an^2 - 2an + a - bn + b + 2 - an^2 + bn - 2 = 4n+2$

$\Rightarrow -2an + a + b = 4n+2$

$-2a = 4 \Rightarrow a = -2$

$a+b = 2 \Rightarrow -2+b = 2 \Rightarrow b = 4$

۵

$$f(\sqrt{w}-v)$$

$$\frac{(\sqrt{w}-v+v)^N+1}{(\sqrt{w}-v+v)^N+w}$$

$$= \frac{f}{y} = \frac{v}{w}$$

$$f(n) = \frac{n^N + n + 1}{(n+1)^N + 1}$$

$$\frac{n^N + n + 1}{(n+1)^N + 1}$$

$$= \frac{v}{w}$$

5

$$f(n) = n^N - v$$

$$\left(n - \frac{1}{n}\right)^N + v = n^N + \frac{1}{n^N} + v$$

$$f(-3) = (-3)^N + v = 9$$

$$f\left(n - \frac{1}{n}\right) = \frac{n^N + 1}{n^N} = n^N + \frac{1}{n^N}$$

$$t^N - v$$

1100

$$g(n) = \sqrt{9-n^2} \quad f(n) = \{(1,0), (1,-4), (0,2), (1,1)\}$$

$$الف) \frac{f}{g} = \left\{ \left(1, \frac{0}{\sqrt{8}}\right), \left(1, \frac{-4}{\sqrt{8}}\right), \left(0, \frac{2}{\sqrt{9}}\right), \left(1, \frac{1}{\sqrt{9}}\right) \right\}$$

5

$$ب) \frac{g}{f} = \left\{ \left(1, \frac{\sqrt{8}}{0}\right), \left(1, \frac{\sqrt{8}}{-4}\right), \left(0, \frac{2}{2}\right), \left(1, \frac{1}{1}\right) \right\}$$

$$الف) f(n) = \{(2,2), (3,1), (-5,4), (1,-4)\}$$

$$ب) f(n) + 1 = \{(2,3), (3,2), (-5,5), (1,-3)\}$$

5

$$ب) f(n) + 1 = \{(2,2), (3,0), (-5,3), (1,-1)\}$$

$$ب) f(2n) = \left\{ (1,1), \left(\frac{3}{2}, 4\right), \left(-\frac{5}{2}, 2\right), \left(\frac{1}{2}, -2\right) \right\}$$

$$g(n) = \{(1,0), (2,1), (-1,4), (-2,3), (3,-1)\}$$

$$الف) f-g = \{(1,4), (2,2), (3,2)\}$$

$$ب) \frac{f}{g} = \left\{ \left(1, \frac{4}{0}\right), \left(2, \frac{2}{1}\right), \left(3, \frac{2}{-1}\right) \right\}$$

5

0