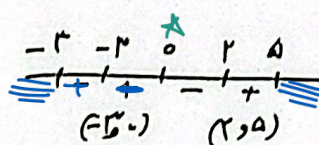


$$x f(x) \geq 0$$

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$$\frac{-9x}{f(x)} f(x) > 0$$



$$f(x) \neq 0, 2, 4$$

$$Dy = (-3, 2) - \{0\}$$

$$x \in (-3, 2)$$

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$$f(2) - 2f(2) = 5 - 6 + 4$$

$$-f(2) = 1$$

$$f(2) = -1$$

$$f(x) = x^2 - 3x + 4$$

$$f(-1) = 5 + 3$$

$$f(1) = 1$$

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$$f(f(1)) + f(f(1)) =$$

$$f(1) + f(1) =$$

$$1 + 1 = 2$$

$$f(1) = 1 + 3 = 4$$

$$f(4) = 16 - 12 + 4 = 8$$

$$f(2) = 4 + 3 = 7$$

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

$$-2an = 4n \rightarrow a = -2$$

$$b = 8$$

$$\rightarrow a - b = -10$$

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$$\frac{(5^3-1)(5^3+1)+2}{(5^3-1)(5^3+1)+2} = \frac{5^3-1+2}{5^3-1+2} = \frac{5^3}{5}$$

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$$\frac{x^2+1}{x^2} = x^2 + \frac{1}{x^2} \rightarrow (n - \frac{1}{n})^2 = n^2 + \frac{1}{n^2} - 2$$

$$n^2 + \frac{1}{n^2} = (n - \frac{1}{n})^2 + 2 \rightarrow f(n - \frac{1}{n}) = (n - \frac{1}{n})^2 + 2$$

$$\phi(n) = n^2 + 2 \rightarrow \phi(1-2) = (-2)^2 + 2 = 6$$

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~~الف~~ { (2, 2), (3, 4), (4, 1), (1, 11) } الف { (2, 2), (3, 4), (4, 1), (1, 11) }
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الف { (1, 4), (2, 2), (3, 2) }

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ب { (1, 4), (2, 2), (3, 2) }