

$$\text{if } n = \sqrt{3} - 1 \Rightarrow n^2 + 1n = 1 - (\sqrt{3} + 1) + \sqrt{3} - 1 = -1$$

$$\frac{-1 + \sqrt{3}}{-1 + \sqrt{3}} = \frac{1}{1}$$

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$$\frac{n^2 + 1}{n^2} = n^2 + \frac{1}{n^2} = \left(n - \frac{1}{n}\right)^2 + 2$$

$$\Rightarrow f(-1) = 4 + 2 = 6$$

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الف) $\left\{ \left(0, \frac{0}{3}\right), \left(1, \frac{-4}{\sqrt{11}}\right), \left(2, \frac{0}{\sqrt{5}}\right), \left(3, \frac{1}{\sqrt{-4}}\right) \right\}$

ب) $\left\{ \left(0, \frac{0}{0}\right), \left(1, \frac{\sqrt{11}}{-4}\right), \left(2, \frac{\sqrt{5}}{0}\right), \left(3, \frac{\sqrt{-4}}{1}\right) \right\}$

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الف) $\left\{ (-5, 4), (1, -4), (2, 2), (3, 1) \right\}$

ب) $\left\{ (-5, 3), (1, -1), (2, 2), (3, 5) \right\}$

ج) $\left\{ (-5, 13), (1, 13), (2, 4), (3, 19) \right\}$

د) $\left\{ \left(\frac{-5}{2}, 2\right), \left(\frac{1}{2}, -2\right), (1, 1), \left(\frac{3}{2}, 4\right) \right\}$

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الف) $\left\{ (1, 4), (2, 2), (3, 2) \right\}$

ب) $\left\{ \left(1, \frac{4}{9}\right), (2, 9), \left(3, \frac{2}{-1}\right) \right\}$

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