

①

$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

Q. ✓

$$\frac{-a}{f(n)} \gg 0$$

$$\begin{array}{r} -2.40 \\ -\frac{1}{2} + \frac{1}{2} + \frac{1}{2} - \frac{1}{2} \end{array}$$

$$D_f = (-w_0) V(09 \text{ Y})$$

① ✓

$$\Rightarrow \text{عدد صحيح}^3 \rightarrow -191 - 29 = \text{عدد صحيح} \Rightarrow$$

$$f(y) - y f'(y) = 1 - y + 1$$

$$f(-1) + \varepsilon = \varepsilon + \gamma + \delta$$

③

$f(r) = r$ $f(r) = -r$

$$f(-1) = 10$$

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Q ✓

$$a_1 - \sqrt{a_1 + 1} \quad a_1 > 4$$

$$r_n + r \quad n \leq r$$

$$\overbrace{f(\underbrace{f(a)}_p)}^q + \overbrace{f(\underbrace{f(1)}_a)}^r = 9$$

⑤

$$f(\omega) = \nu$$

$$f(1) = 2$$

$$f(r) = v$$

① ✓

$$f(n) = an^r - bn^{r-1}$$

$$f(n-1) = a(n-1)^r - b(n-1) + r$$

$$a(n^r - (n+1)^r) + b(n + b + r) = an^r - (a + b + r)n + a + b + r$$

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

$$-10a + a + b = 4n + 1$$

$$a + b = r$$

$$-Y_a = 9 \rightarrow a = -3$$

$$-r + b = 2$$

$b = \omega$
ELIO

طبق رسول [↑] حضرت اید متناظر بر اید

$$a - b = -1 - 0 = -1$$

$$f(3) = 9 - 9 + 1 \rightarrow f(3) = 1$$

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

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

$$\frac{2 \times 1 + 1}{1} = 3$$

(2) ✓

$$f(3) = 13$$

$$f(-2) = 3$$

$$f(4) = 5$$

$$\frac{(3 \times 13) - f(3)}{5} = \frac{39 - 1}{5} = \frac{38}{5}$$

(2) ✓

$$f(3) = 1 \quad f(2) = 2 \quad f(1) = 4 \quad f(4) = 4$$

$$\frac{f(f(3)) - f(f(2))}{f(1) - 2} = 0 \dots$$

(2) ✓

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

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

$$f(f(\sqrt{n}-2))$$

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

(2) ✓

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

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

$$(f(\sqrt{n}))^2 - f(n)$$

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

(2) ✓