

$$1. \quad xf(n) \geq 0 \rightarrow [-\omega, \omega] \Rightarrow f(n) < 0 \quad -1$$

$$2. \quad [r, \omega], [-\omega, -r] \Rightarrow f(n) > 0$$

$$3. \Rightarrow Df \subset [-\omega, 0] \cup [r, \omega]$$

$$7. \quad \frac{-n}{f(n)} \geq 0 \rightarrow \underbrace{(-r, 0)}_{-r, -1} \cup \underbrace{(0, r)}_1 \quad -5$$

$$9. \quad -r, -1, 1 \rightarrow \text{converge}$$

$$13. \quad f(n) - rf(r) = n^r - r^n + r, \quad f(-r) = ? \quad -10$$

$$14. \quad n = r \rightarrow f(r) - rf(r) = r \rightarrow -f(r) = r \quad f(r) = -r$$

$$15. \quad n = -r \rightarrow f(-r) - rf(-r) = 1 \rightarrow f(-r) = 1$$

$$17. \quad f(\omega) = \omega - \sqrt{a} = r \quad f(f(\omega)) = f(r) = r \times r + r = V \quad -8$$

$$18. \quad f(1) = r(1) + r = \omega \quad f(f(1)) = f(\omega) = r$$

$$19. \Rightarrow V + r = 4$$



$$f(n) = an^r - bn + r \rightarrow f(n-1) - f(n) = 4n + r \quad -\omega$$

$$a - b = ?$$

$$\xrightarrow{f(n) \geq n-1} f(n-1) = a(n-1)^r - b(n-1) + r = an^r + a - ran - bn + b + r$$

$$f(n-1) - f(n) = ran + a + b$$

$$-ran + a + b = 4n + r \rightarrow a = -\frac{r}{4} \rightarrow$$

$$a + b = r \rightarrow -\frac{r}{4} + b = r \rightarrow b = r + \frac{r}{4} \rightarrow b = \frac{5r}{4}$$

$$a - b = -\frac{r}{4} - \frac{5r}{4} = -\frac{6r}{4} = -\frac{3r}{2}$$

$$f(n) = n^r - \frac{3r}{2}n + 1$$

$$\frac{r f(r) + f(-1)}{f'(r)} = \frac{r + 1}{1} = r + 1$$

$$f(r) = 1 - 1 + 1 \rightarrow f(r) = 1$$

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

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

$$f(r) = r^r \times r + 1 = f(r) = 1^r$$

$$f(-r) = r$$

$$f(r) = r^r \times r + 1 = r$$

$$\frac{r \times 1^r - r \times r}{\sqrt{\quad}} = \frac{r^r - 1}{\sqrt{\quad}} = \frac{r^r - 1}{\sqrt{\quad}}$$



SUBJECT

Year: Month: Day:

Page: ()

$$f_2((x, y), (x, y), ((x, 1), (1, y)))$$

$$\frac{f(f(x)) - f(f(y))}{f(x) - y} = \frac{4-4}{4-x} = 0$$

$$f(x) = \frac{x^2 + 6x + 9}{9x^2 + 6x + 1}$$

$$f(f(\sqrt{x} - y)) = ?$$

$$x^2 + 6x + 9 = (\sqrt{x} - y)^2 + 6(\sqrt{x} - y) + 9 = x + 6 - 2\sqrt{x}y + 6\sqrt{x} - 6y + 9 = -1$$

$$f(\sqrt{x} - y) = \frac{-1 + 9}{-1 + 1} = \frac{8}{0} = \infty$$

$$f(y) = \frac{8 + 6 + 9}{9 + 6 + 1} = \frac{23}{16}$$

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

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

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

$$x^2 + \frac{1}{x^2} + 2 - x^2 - \frac{1}{x^2} = 2$$



Senobar