

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

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

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

$$\Rightarrow \frac{2+2}{1} = 4$$

Ⓟ ✓

$$f(2) = 3(2) + 1 = 7$$

$$f(-2) = (-2)^2 = 2$$

$$f(2) = 3(2) + 1 = 7$$

$$\Rightarrow \frac{7-2}{2} = \frac{5}{2}$$

Ⓟ ✓

$$f(2) = 1 \Rightarrow f(1) = 4$$

$$f(3) = 2 \Rightarrow f(2) = 4$$

$$f(1) = 4$$

Ⓟ ✓

$$\Rightarrow \frac{4-4}{4} = 0$$

$$x = \sqrt{3-2} \Rightarrow \frac{(\sqrt{3-2})^2 + 2(\sqrt{3-2}) + 9}{(\sqrt{3-2})^2 + 2(\sqrt{3-2}) + 4} = \frac{3+2 + \cancel{2\sqrt{3-2}} - 1 + 9}{3+2 + \cancel{2\sqrt{3-2}} - 1 + 4} = \frac{11}{8}$$

$$f(2) = \frac{2 + 1 + 9}{2 + 1 + 4} = \frac{12}{7}$$

Ⓟ ✓

$$if(x) = \sqrt{x} \Rightarrow \sqrt{x} + \frac{1}{\sqrt{x}} = x + \frac{1}{x} = \left(x + \frac{1}{x}\right)^2 = x^2 + 2 + \frac{1}{x^2} - x^2 + \frac{1}{x^2}$$

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

Ⓟ ✓