

Jalaseh2

$$\begin{aligned} > \text{seq1} := \text{seq}\left(\frac{(2 \cdot n + 1)}{(n^2 - n - 1)}, n = 1..10\right); \\ & \text{seq1} := -3, 5, \frac{7}{5}, \frac{9}{11}, \frac{11}{19}, \frac{13}{29}, \frac{15}{41}, \frac{17}{55}, \frac{19}{71}, \frac{21}{89} \end{aligned} \quad (1)$$

$$\begin{aligned} > \text{List} := [1, 46, 100]; \\ & \text{List} := [1, 46, 100] \end{aligned} \quad (2)$$

$$\begin{aligned} > \text{List}[2]; \\ & 46 \end{aligned} \quad (3)$$

$$\begin{aligned} > \text{List2} := [\text{seq1}]; \\ & \text{List2} := \left[-3, 5, \frac{7}{5}, \frac{9}{11}, \frac{11}{19}, \frac{13}{29}, \frac{15}{41}, \frac{17}{55}, \frac{19}{71}, \frac{21}{89}\right] \end{aligned} \quad (4)$$

$$\begin{aligned} > A := \{1, 2, 5, 11\}; \\ & A := \{1, 2, 5, 11\} \end{aligned} \quad (5)$$

$$\begin{aligned} > B := \{\text{seq1}\}; \\ & B := \left\{-3, 5, \frac{7}{5}, \frac{9}{11}, \frac{11}{19}, \frac{13}{29}, \frac{15}{41}, \frac{17}{55}, \frac{19}{71}, \frac{21}{89}\right\} \end{aligned} \quad (6)$$

$$\begin{aligned} > C := A \text{ union } B; \\ & C := \left\{-3, 1, 2, 5, 11, \frac{7}{5}, \frac{9}{11}, \frac{11}{19}, \frac{13}{29}, \frac{15}{41}, \frac{17}{55}, \frac{19}{71}, \frac{21}{89}\right\} \end{aligned} \quad (7)$$

$$\begin{aligned} > S := A \text{ intersect } B; \\ & S := \{5\} \end{aligned} \quad (8)$$

$$\begin{aligned} > \text{seq2} := \text{seq}\left(\frac{1}{(n^2 + n)} \cdot \text{Pi}, n = 1..5\right); \\ & \text{seq2} := \frac{1}{2} \pi, \frac{1}{6} \pi, \frac{1}{12} \pi, \frac{1}{20} \pi, \frac{1}{30} \pi \end{aligned} \quad (9)$$

$$\begin{aligned} > \text{set3} := \{\text{seq2}\}; \\ & \text{set3} := \left\{\frac{1}{12} \pi, \frac{1}{20} \pi, \frac{1}{30} \pi, \frac{1}{2} \pi, \frac{1}{6} \pi\right\} \end{aligned} \quad (10)$$

$$\begin{aligned} > \text{map}(\sin, \text{set3}); \\ & \left\{1, \frac{1}{2}, \sin\left(\frac{1}{12} \pi\right), \sin\left(\frac{1}{20} \pi\right), \sin\left(\frac{1}{30} \pi\right)\right\} \end{aligned} \quad (11)$$

$$\begin{aligned} > \text{set4} := \left\{0, \text{Pi}, \frac{\text{Pi}}{4}\right\}; \\ & \text{set4} := \left\{0, \pi, \frac{1}{4} \pi\right\} \end{aligned} \quad (12)$$

$$\begin{aligned} > \text{seq4} := \text{seq}\left(\frac{(n-1) \cdot \text{Pi}}{4}, n = 1..3\right); \\ & \text{seq4} := 0, \frac{1}{4} \pi, \frac{1}{2} \pi \end{aligned} \quad (13)$$

$$\begin{aligned} > \text{map}(\cos, \text{set4}); \\ & \end{aligned} \quad (14)$$

$$\{-1, 1, \frac{1}{2} \sqrt{2}\} \quad (14)$$

$$> f := x \rightarrow \frac{x}{(x+1)};$$

$$f := x \rightarrow \frac{x}{x+1} \quad (15)$$

$$> f(1);$$

$$\frac{1}{2} \quad (16)$$

$$> a[1] := 1;$$

$$a_1 := 1 \quad (17)$$

> for k from 1 to 5 do
a[k+1] := f(a[k]);
od;

$$a_2 := \frac{1}{2}$$

$$a_3 := \frac{1}{3}$$

$$a_4 := \frac{1}{4}$$

$$a_5 := \frac{1}{5}$$

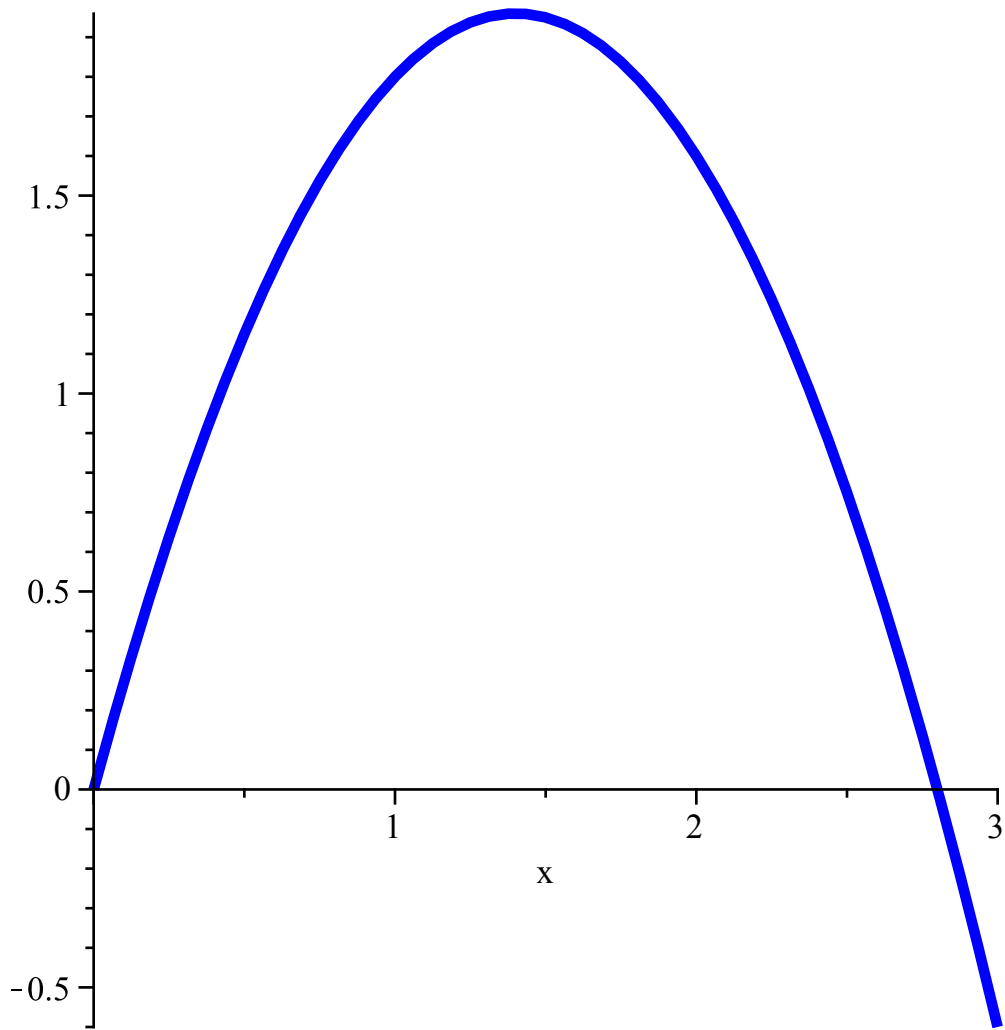
$$a_6 := \frac{1}{6}$$

(18)

$$> g := x \rightarrow 2.8 \cdot x - x^2;$$

$$g := x \rightarrow 2.8x - x^2 \quad (19)$$

$$> plot(g(x), x=0..3, thickness=4, color=blue);$$



$$> \lim \left(\frac{(2 \cdot n^2 - 3 \cdot n + 1)}{2^{\frac{1}{n}} + 3 \cdot n^2 - 1}, n = \text{infinity} \right);$$

$$\frac{2}{3}$$

(20)

$$> \lim \left(\frac{2 \cdot n^2 - 3 \cdot n + 1}{3 \cdot n^2 - 1}, n = \text{infinity} \right);$$

$$\frac{2}{3}$$

(21)

$$> \lim \left(n^{\frac{1}{n}}, n = \text{infinity} \right);$$

$$1$$

(22)

$$> \lim \left(\frac{(2^n + 5^n)}{2^{n+p} + 5^{n+p}}, n = \text{infinity} \right);$$

$$\frac{1}{5^p}$$

(23)

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