>

Jalaseh2

> $seq1 := seq\left(\frac{(2\cdot n+1)}{(n^2-n-1)}, n=1..10\right);$

$$seq1 := -3, 5, \frac{7}{5}, \frac{9}{11}, \frac{11}{19}, \frac{13}{29}, \frac{15}{41}, \frac{17}{55}, \frac{19}{71}, \frac{21}{89} \quad (1)$$

> $List := [1, 46, 100];$

$$List := [1, 46, 100] \quad (2)$$

> $List[2];$

$$46 \quad (3)$$

> $List2 := [seq1];$

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

> $A := \{1, 2, 5, 11\};$

$$A := \{1, 2, 5, 11\} \quad (5)$$

> $B := \{seq1\};$

$$B := \left\{-3, 5, \frac{7}{5}, \frac{9}{11}, \frac{11}{19}, \frac{13}{29}, \frac{15}{41}, \frac{17}{55}, \frac{19}{71}, \frac{21}{89}\right\} \quad (6)$$

> $C := A \text{ union } B;$

$$C := \left\{-3, 1, 2, 5, 11, \frac{7}{5}, \frac{9}{11}, \frac{11}{19}, \frac{13}{29}, \frac{15}{41}, \frac{17}{55}, \frac{19}{71}, \frac{21}{89}\right\} \quad (7)$$

> $S := A \text{ intersect } B;$

$$S := \{5\} \quad (8)$$

> $seq2 := seq\left(\frac{1}{(n^2+n)}\cdot Pi, n=1..5\right);$

$$seq2 := \frac{1}{2}\pi, \frac{1}{6}\pi, \frac{1}{12}\pi, \frac{1}{20}\pi, \frac{1}{30}\pi \quad (9)$$

> $set3 := \{seq2\};$

$$set3 := \left\{\frac{1}{12}\pi, \frac{1}{20}\pi, \frac{1}{30}\pi, \frac{1}{2}\pi, \frac{1}{6}\pi\right\} \quad (10)$$

> $map(sin, set3);$

$$\left\{1, \frac{1}{2}, \sin\left(\frac{1}{12}\pi\right), \sin\left(\frac{1}{20}\pi\right), \sin\left(\frac{1}{30}\pi\right)\right\} \quad (11)$$

> $set4 := \left\{0, Pi, \frac{Pi}{4}\right\};$

$$set4 := \left\{0, \pi, \frac{1}{4}\pi\right\} \quad (12)$$

> $seq4 := seq\left(\frac{(n-1)\cdot Pi}{4}, n=1..3\right);$

$$seq4 := 0, \frac{1}{4}\pi, \frac{1}{2}\pi \quad (13)$$

> $map(cos, set4);$

(14)

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

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

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

> $f(1);$

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

> $a[1] := 1;$

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

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

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

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

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

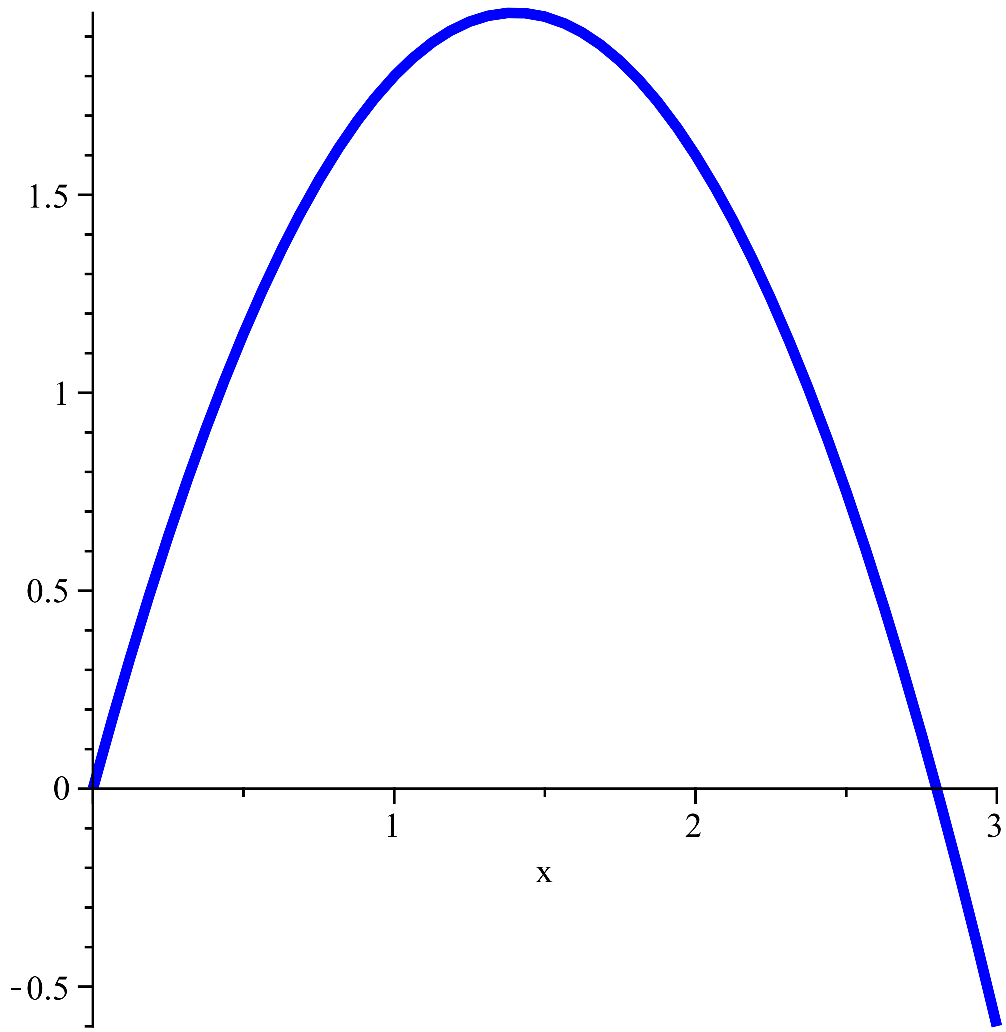
$$a_5 := \frac{1}{5}$$

$$a_6 := \frac{1}{6} \quad (18)$$

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

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

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



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

$$\frac{2}{3} \qquad \textbf{(20)}$$

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

$$\frac{2}{3} \qquad \textbf{(21)}$$

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

$$1 \qquad \textbf{(22)}$$

>

> $limit\left(\dfrac{(2^n + 5^n)}{2^{n+p} + 5^{n+p}}, n = infinity\right);$

$$\frac{1}{5^p} \qquad \textbf{(23)}$$