

$$17 - 23; \quad -6 \quad (1)$$

$$\frac{24}{6}; \quad 4 \quad (2)$$

$$4 \cdot 7; \quad 28 \quad (3)$$

$$15!; \quad 1307674368000 \quad (4)$$

$$\text{ifactor}(34276); \quad (2)^2 (11) (19) (41) \quad (5)$$

$$\text{iquo}(49, 8); \quad 6 \quad (6)$$

$$\text{irem}(49, 8); \quad 1 \quad (7)$$

$$\text{isprime}(43277); \quad \text{false} \quad (8)$$

$$\text{isprime}(347); \quad \text{true} \quad (9)$$

$$\frac{65}{7} + \frac{2}{3}; \quad \frac{209}{21} \quad (10)$$

$$\text{evalf}(\%, 3); \quad 9.95 \quad (11)$$

$$1/4 * 3^{**} (2/3) * 4^{**} (2/5); \quad \frac{1}{4} 3^{2/3} 4^{2/5} \quad (12)$$

$$\text{sqrt}(3 + 2 * \text{sqrt}(2)) - \text{sqrt}(3 - 2 * \text{sqrt}(2)); \quad 2 \quad (13)$$

$$(2/3 + 3 * I); \quad \frac{2}{3} + 3 I \quad (14)$$

$$(2/3 + 2 * I) + (1/3 - I); \quad 1 + I \quad (15)$$

$$(2/3 + 2 * I) - (1/3 - I); \quad \frac{1}{3} + 3 I \quad (16)$$

$$(2/3 + 2 * I) * (1/3 + I); \quad -\frac{16}{9} + \frac{4}{3} I \quad (17)$$

$$(2/3 + 2 * I) / (1/3 - I); \quad -\frac{8}{5} + \frac{6}{5} I \quad (18)$$

$$\text{conjugate}(-8/5 + 6/5 * I);$$

$$-\frac{8}{5} - \frac{6}{5} I \quad (19)$$

$$\text{abs}(-8/5 + 6/5 * I);$$

$$2 \quad (20)$$

$$\text{argument}(-8/5 + 6/5 * I);$$

$$-\arctan\left(\frac{3}{4}\right) + \pi \quad (21)$$

$$\text{Re}(-8/5 + 6/5 * I); \text{Im}(-8/5 + 6/5 * I);$$

$$-\frac{8}{5} \quad (22)$$

$$\frac{6}{5}$$

$$\text{evalc}(\text{argument}((1/2)^{(1/2)} - I * (1/2)^{(1/2)})^{(1/4)}));$$

$$-\frac{1}{16} \pi \quad (23)$$

$$\text{evalf}(\text{Pi}, 7);$$

$$3.141593 \quad (24)$$

$$\text{evalf}(\text{gamma}, 12);$$

$$0.577215664902 \quad (25)$$

$$S := \text{"FRAZA"};$$

$$\pi \quad (26)$$

$$\text{length}(S);$$

$$\text{"FRAZA"} \quad (27)$$

$$S[3];$$

$$5 \quad (28)$$

$$\text{"FRAZA"}[2..4];$$

$$\text{"A"} \quad (29)$$

$$\text{"FRAZA"} \parallel \text{"235"};$$

$$\text{"RAZ"} \quad (30)$$

$$\text{cat}(\text{"FRAZA"}, \text{"235"});$$

$$\text{"FRAZA235"} \quad (31)$$

$$\text{? protect}$$

$$\text{? inifunction};$$

$$\text{ff} := x \rightarrow (\sin(x) + \cos(x)) / x^2;$$

$$\text{"FRAZA235"} \quad (32)$$

$$x \rightarrow \frac{\sin(x) + \cos(x)}{x^2} \quad (33)$$

$$\text{evalf}(\text{ff}(2));$$

$$0.1232876476 \quad (34)$$

$$\text{ff1} := (x, y) \rightarrow \sin(x) * \sin(y) / (\sin(x) + \sin(y));$$

$$(x, y) \rightarrow \frac{\sin(x) \sin(y)}{\sin(x) + \sin(y)} \quad (35)$$

$$\text{evalf}(\text{ff}(2, 3));$$

$$0.1232876476 \quad (36)$$

$$\text{piecewise}(-\infty < x \text{ and } x \leq 0, x^2, 0 < x, x);$$

$$\begin{cases} x^2 & -\infty < x \text{ and } x \leq 0 \\ x & 0 < x \end{cases} \quad (37)$$

$$\text{piecewise}(x^2 + y^2 \leq 1, x^2 + y^2, 1/\text{sqrt}(x^2 + y^2));$$

$$\begin{cases} x^2 + y^2 & x^2 + y^2 \leq 1 \\ \frac{1}{\sqrt{x^2 + y^2}} & \text{otherwise} \end{cases} \quad (38)$$

$$s1 := 1, x, x^2, x^3;$$

$$1, x, x^2, x^3 \quad (39)$$

$$\text{whattype}(s1);$$

$$\text{exprseq} \quad (40)$$

$$s1[2..4];$$

$$x, x^2, x^3 \quad (41)$$

$$s1[2] := y;$$

Error, invalid assignment (1, x, x^2, x^3)[2] := y; cannot assign to an expression sequence

$$a, b, c, d := s1;$$

$$1, x, x^2, x^3 \quad (42)$$

$$s2 := \text{seq}(1/(j^{(3/2)}), j=1..10);$$

$$1, \frac{1}{4} \sqrt{2}, \frac{1}{9} \sqrt{3}, \frac{1}{16} \sqrt{4}, \frac{1}{25} \sqrt{5}, \frac{1}{36} \sqrt{6}, \frac{1}{49} \sqrt{7}, \frac{1}{64} \sqrt{8}, \frac{1}{81} \sqrt{9}, \frac{1}{100} \sqrt{10} \quad (43)$$

$$s3 := \text{seq}(1/i, i=s1);$$

$$1, \frac{1}{x}, \frac{1}{x^2}, \frac{1}{x^3} \quad (44)$$

$$sp1 := [1, x, x^2, x^3, x^4];$$

$$[1, x, x^2, x^3, x^4] \quad (45)$$

$$sp1[2];$$

$$x \quad (46)$$

$$sp1[3..-1];$$

$$[x^2, x^3, x^4] \quad (47)$$

$$sp1[3] := y^2;$$

$$y^2 \quad (48)$$

$$sp1 := sp1;$$

$$[1, x, y^2, x^3, x^4] \quad (49)$$

$$Mn1 := \{a, b, c, a, b, c, d, f, a\};$$

$$\{1, f, x, x^2, x^3\} \quad (50)$$

$$Mn1[2..4];$$

$$\{f, x, x^2\} \quad (51)$$

$$Mn1[4]; \quad x^2 \quad (52)$$

$$Mn1[4] := dd; \\ \text{Error, cannot reassign the entries in a set} \\ Mn2 := Mn1 \text{ union } \{e, g\}; \quad \{1, e, f, g, x, x^2, x^3\} \quad (53)$$

$$Mn3 := Mn2 \text{ minus } \{b\}; \quad \{1, e, f, g, x^2, x^3\} \quad (54)$$

$$Mn4 := Mn2 \text{ intersect } Mn3; \quad \{1, e, f, g, x^2, x^3\} \quad (55)$$

$$MM := \text{array}(1..4, 1..4, [[1, 2, 3, 4], [2, 3, 4, 5], [3, 4, 5, 6], [4, 5, 6, 7]]); \\ \begin{bmatrix} 1 & 2 & 3 & 4 \\ 2 & 3 & 4 & 5 \\ 3 & 4 & 5 & 6 \\ 4 & 5 & 6 & 7 \end{bmatrix} \quad (56)$$

$$MM1 := \text{array}(1..4, 1..4, [\text{seq}([\text{seq}(i+j, i=1..4)], j=1..4)]); \\ \begin{bmatrix} 2 & 3 & 4 & 5 \\ 3 & 4 & 5 & 6 \\ 4 & 5 & 6 & 7 \\ 5 & 6 & 7 & 8 \end{bmatrix} \quad (57)$$

$$MM[2, 1]; MM; \quad 2 \quad (58)$$

$$MM[3, 3] := 100; \quad 100 \quad (59)$$

$$\text{print}(MM); \\ \begin{bmatrix} 1 & 2 & 3 & 4 \\ 2 & 3 & 4 & 5 \\ 3 & 4 & 100 & 6 \\ 4 & 5 & 6 & 7 \end{bmatrix} \quad (60)$$

$$MM2 := \text{array}(1..2, 1..2, 1..2, [[[a, b], [c, d]], [[a1, b1], [c1, d1]]]); \\ \text{ARRAY}([1..2, 1..2, 1..2], [(1, 1, 1) = 1, (1, 1, 2) = x, (1, 2, 1) = x^2, (1, 2, 2) = x^3, (2, 1, 1) \\ = a1, (2, 1, 2) = b1, (2, 2, 1) = c1, (2, 2, 2) = d1]) \quad (61)$$

$$SM := [\text{seq}([\text{seq}(m[i, j], j=1..3)], i=1..3)]; \\ [[m_{1,1}, m_{1,2}, m_{1,3}], [m_{2,1}, m_{2,2}, m_{2,3}], [m_{3,1}, m_{3,2}, m_{3,3}]] \quad (62)$$

$$SM := [\text{seq}([\text{seq}(m[i, j], j=1..3)], i=1..3)]; \\ MMM := \text{array}(SM);$$

$$\begin{bmatrix} m_{1,1} & m_{1,2} & m_{1,3} \\ m_{2,1} & m_{2,2} & m_{2,3} \\ m_{3,1} & m_{3,2} & m_{3,3} \end{bmatrix} \quad (63)$$

:
gamma = *evalf*(gamma)

$$\gamma = 0.5772156649 \quad (64)$$