

```

--> 1+1/(2+1/(2+1/(2+1/2)));
(%o1)  $\frac{41}{29}$ 

--> float(%);
(%o2) 1.413793103448276

--> expand(-(-3*a^3*b^2*c^2-(4*a^2*b^3*c^3+3*a^3*b^2*c^2-(-2*a^2*b^3*c^3)))+a*b*c*(-5*a^2*b*c+3*a*b^2*c^2));
(%o3)  $9 a^2 b^3 c^3 + a^3 b^2 c^2$ 

--> expand((\phi + \xi)^7);
(%o5)  $\xi^7 + 7 \varphi \xi^6 + 21 \varphi^2 \xi^5 + 35 \varphi^3 \xi^4 + 35 \varphi^4 \xi^3 + 21 \varphi^5 \xi^2 + 7 \varphi^6 \xi + \varphi^7$ 

--> expand((1+t+t^6+t^7+t^9+t^9)*(t^5-t^4-t^3-t^2));
(%o6)  $2 t^{14} - 2 t^{13} - t^{12} - 2 t^{11} - 2 t^{10} - 2 t^9 - t^8 + t^6 - 2 t^4 - 2 t^3 - t^2$ 

--> factor(x+1-x^3-x^2);
(%o7)  $-(x-1)(x+1)^2$ 

(%i1) factor(x^2+13*x+7);
(%o1)  $x^2 + 13 x + 7$ 

(%i2) allroots(x^2+13*x+7 = 0);
(%o2)  $[x = -.5628289564810414, x = -12.43717104351896]$ 

(%i5) Expression(\Phi) := \Phi^3-1/\Phi + 5 * (\Phi^2-2);
(%o5)  $\text{Expression}(\Phi) := \Phi^3 - \frac{1}{\Phi} + 5 (\Phi^2 - 2)$ 

(%i6) Expression(1/5);
(%o6)  $-\frac{1849}{125}$ 

(%i7) float(%);
(%o7) -14.792

```