

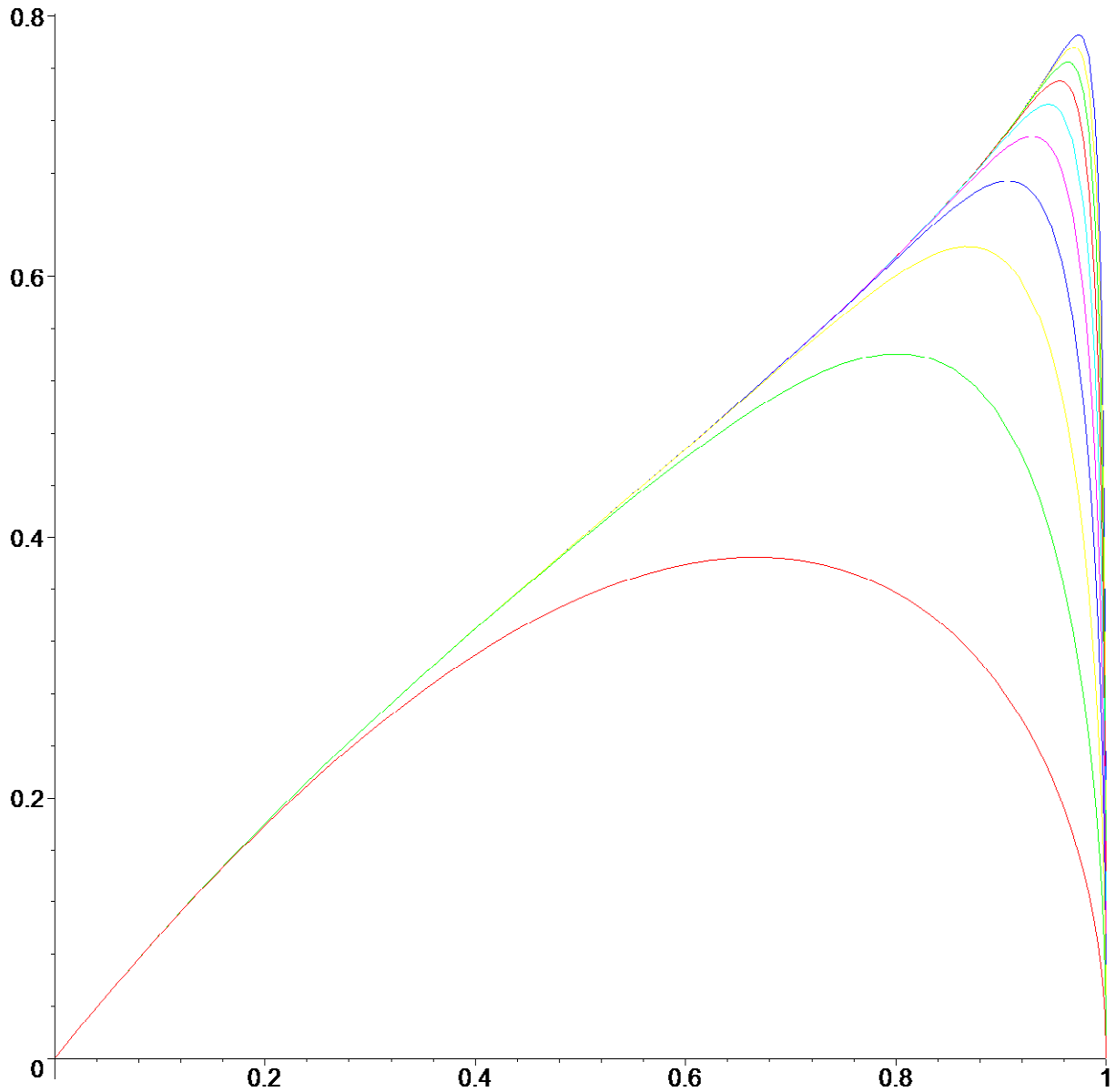
[ O19-C09

[ > restart;

[ > f:=n->sqrt(1-x)\*sum(x^(p^2),p=1..n);

$$f := n \rightarrow \sqrt{1-x} \left( \sum_{p=1}^n x^{(p^2)} \right)$$

[ > plot([seq(f(n),n=1..10)],x=0..1);



[ > g:=[seq(f(2\*n),n=1..20)]:evalf([seq(maximize(g[k],x=1-1/k..1),k=1..3)]);

[ [0.5409580384, 0.6736350829, 0.7320774307]

[ > evalf(sqrt(Pi)/2);

[ 0.8862269255

[ >