

$$\begin{aligned} &> 1/(1-t)^3; \\ &\frac{1}{(1-t)^3} \end{aligned} \tag{1}$$

$$\begin{aligned} &> \text{series}(\%,t=0,20); \\ &1 + 3t + 6t^2 + 10t^3 + 15t^4 + 21t^5 + 28t^6 + 36t^7 + 45t^8 + 55t^9 + 66t^{10} + 78t^{11} + 91t^{12} \\ &\quad + 105t^{13} + 120t^{14} + 136t^{15} + 153t^{16} + 171t^{17} + 190t^{18} + 210t^{19} + O(t^{20}) \end{aligned} \tag{2}$$

$$\begin{aligned} &> 1/\text{sqrt}(1-4*x); \\ &\frac{1}{\sqrt{1-4x}} \end{aligned} \tag{3}$$

$$\begin{aligned} &> \text{series}(\%,x=0,20); \\ &1 + 2x + 6x^2 + 20x^3 + 70x^4 + 252x^5 + 924x^6 + 3432x^7 + 12870x^8 + 48620x^9 \\ &\quad + 184756x^{10} + 705432x^{11} + 2704156x^{12} + 10400600x^{13} + 40116600x^{14} \\ &\quad + 155117520x^{15} + 601080390x^{16} + 2333606220x^{17} + 9075135300x^{18} \\ &\quad + 35345263800x^{19} + O(x^{20}) \end{aligned} \tag{4}$$