```
> restart:
> N:=200:
> R:=0: for i from 1 to N do R:=series(1+t*R**2,t,i+1): od:
> R:
> Ri:=i->series(t**i*R**(2*i+2),t,N+1):
> Ri(3):
> SumR:=series(add(i*Ri(i),i=0..N),t,N+1):
> dR:=series(2*t*diff(R,t)+R,t,N+1):
> u:=n->evalf(coeff(SumR,t,n)/coeff(dR,t,n));
```

$$u := n \rightarrow evalf\left(\frac{coeff(SumR,\, t,\, n)}{coeff(dR,\, t,\, n)}\right) \tag{1}$$

```
> v:=n->n*(u(n+1)/u(n)-1);
```

$$v := n \rightarrow n\left(\frac{u(n+1)}{u(n)} - 1\right) \tag{2}$$

```
> seq(v(n),n=100..199);
```

0.554828800, 0.554566659, 0.554308290, 0.554053480, 0.553802288,   **(3)**
    0.553554645, 0.553310354, 0.553069411, 0.552831804, 0.552597300,
    0.552365880, 0.552137532, 0.551912256, 0.551689730, 0.551470212,
    0.551253420, 0.551039324, 0.550827927, 0.550619152, 0.550412961,
    0.550209360, 0.550008041, 0.549809348, 0.549612831, 0.549418704,
    0.549226875, 0.549037314, 0.548849804, 0.548664576, 0.548481426,
    0.548300220, 0.548121161, 0.547944144, 0.547768879, 0.547595690,
    0.547424325, 0.547254888, 0.547087169, 0.546921324, 0.546757056,
    0.546594720, 0.546433938, 0.546274852, 0.546117429, 0.545961600,
    0.545807260, 0.545654560, 0.545503476, 0.545353656, 0.545205602,
    0.545058750, 0.544913398, 0.544769368, 0.544627062, 0.544485788,
    0.544345895, 0.544207248, 0.544070312, 0.543934118, 0.543799557,
    0.543665920, 0.543533746, 0.543402756, 0.543272969, 0.543144384,
    0.543016650, 0.542890218, 0.542764863, 0.542640672, 0.542517716,
    0.542395370, 0.542274687, 0.542154492, 0.542035815, 0.541917606,
    0.541800700, 0.541684704, 0.541569732, 0.541455708, 0.541342540,
    0.541230300, 0.541119048, 0.541008832, 0.540899139, 0.540790720,
    0.540682850, 0.540576078, 0.540469831, 0.540364828, 0.540260280,
    0.540156700, 0.540053837, 0.539952000, 0.539850722, 0.539750098,
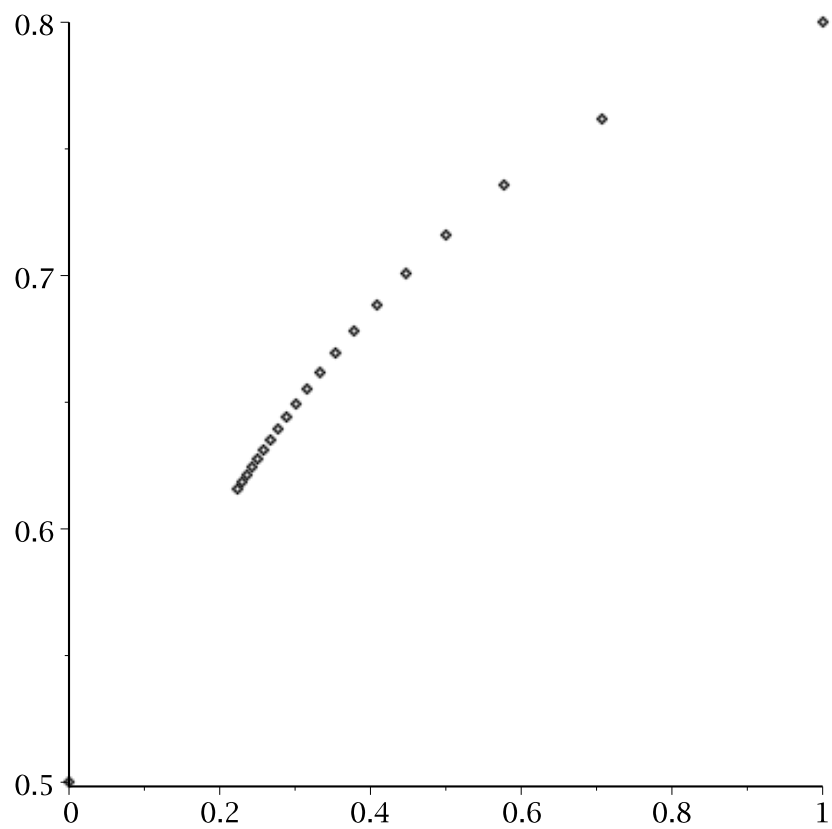   0.539650605, 0.539551544, 0.539453177, 0.539355960, 0.539258956

```
> Vec:=(i,j)->[[0,0.5],seq([evalf(1/sqrt(n)),v(n)],n=i..j)];
```
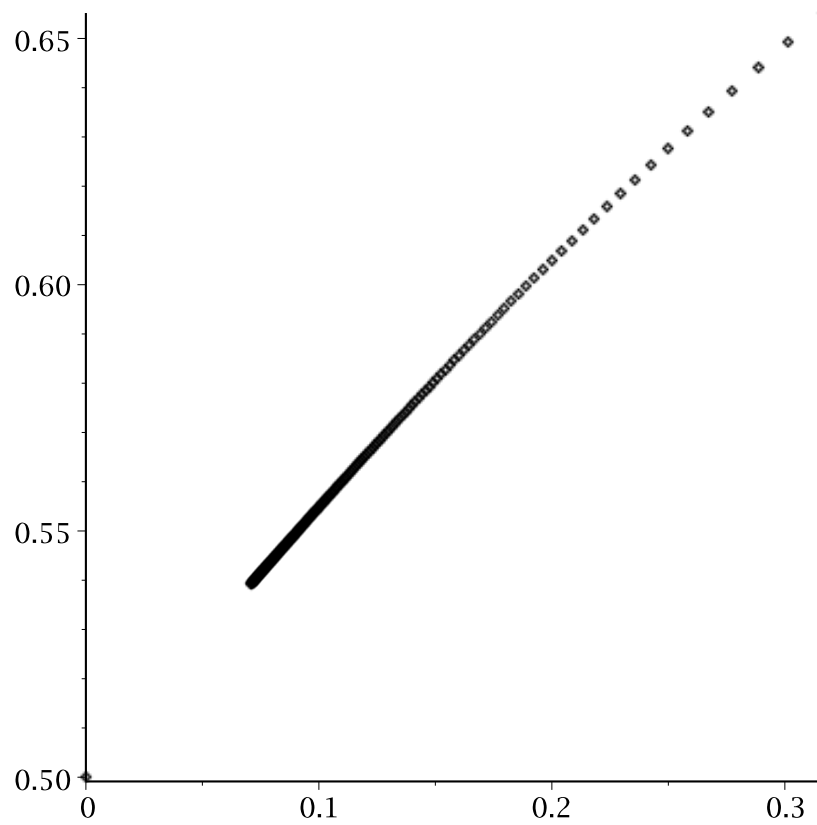
$$Vec := (i,\, j) \rightarrow \left[[0,\, 0.5],\, seq\left(\left[evalf\left(\frac{1}{\sqrt{n}}\right),\, v(n)\right],\, n = i..j\right)\right] \tag{4}$$

> with(plots):
> pointplot(Vec(1,20));

> pointplot(Vec(10,199));

> **pointplot(Vec(100,199));**