Wednesday, March 13, 2019 9:23 AM

$$\frac{1}{2}\left(\frac{1}{2}\cdot\frac{1}{2}+\frac{1}{4}\cdot\frac{1}{2}+\frac{1}{8}\cdot\frac{1}{2}\right)$$

$$=\frac{1}{8}+\frac{1}{16}+\frac{1}{32}+\cdots$$

$$\frac{\frac{1}{8}}{1-\frac{1}{2}}=\frac{1}{4}$$

(6) (E) partial sums don't have a limit

(26) $\frac{1}{1+x} \cdot \frac{1}{2\sqrt{x}}$ (A)

How much money do we set aside?

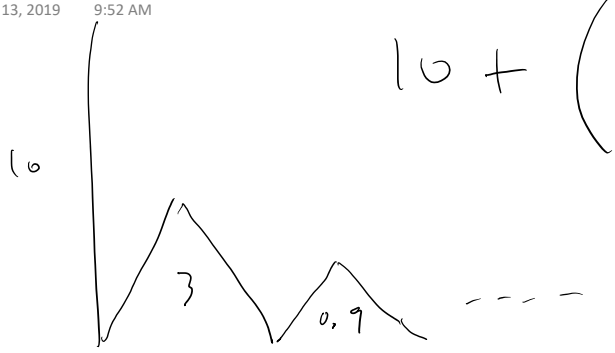
$$2000 + \frac{2000}{1.04} + \frac{2000}{1.04^2} + \frac{2000}{1.04^3} \cdots$$

$$S_N = \frac{c(1-r^N)}{1-r} \qquad + \frac{2000}{1.04^{19}}$$

N = # terms in series

$$\frac{2000\left(1-\frac{1}{1.04^{20}}\right)}{1-\frac{1}{1.04}} = \$28,267$$

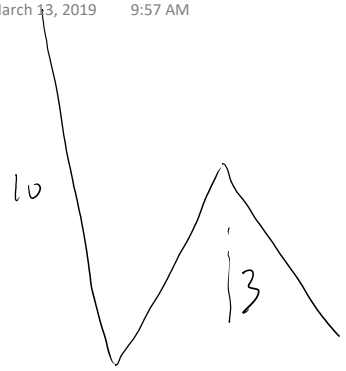
continue indefinitely $\rightarrow$ \$52,000



$$10 + \left(6 + 1.8 + 0.54 + \cdots\right)$$

$$10 + \frac{6}{1-0.3} = 18.571$$

Wednesday, March 13, 2019 9:57 AM



$s = \frac{1}{2} g t^2$

$\sqrt{\frac{25}{9}} = t = \sqrt{\frac{5}{16}} = \frac{\sqrt{5}}{4}$

$\frac{\sqrt{10}}{4} + \left(2 \cdot \frac{\sqrt{3}}{4} + \frac{2\sqrt{0.9}}{4} + \cdots \right)$

$r = \sqrt{0.3}$

$\frac{\sqrt{10}}{4} + \frac{2\sqrt{3}/4}{1 - \sqrt{0.3}} = 2.705\ 5$

$$f(1) = f(-5) + \underbrace{\int_{-5}^{1} f'(x)\,dx}_{\Delta f}$$