Thursday, March 14, 2019 9:26 AM

$$s = \frac{1}{2} g t^2 \qquad \sqrt{\frac{2s}{g}} = t = \frac{\sqrt{s}}{4}$$

$$\frac{\sqrt{100}}{4} + \left(2 \cdot \frac{\sqrt{75}}{4} + \frac{2\sqrt{75}\sqrt{0.75}}{4} + \cdots \right)$$

$$\frac{\sqrt{100}}{4} + \frac{\frac{2\sqrt{75}}{4}}{1 - \sqrt{0.75}}$$

Thursday, March 14, 2019 9:31 AM

$u = x^3 + 2$

$du = 3x^2\,dx$

$\frac{1}{3}\,du = x^2\,dx$

$$\frac{1}{3}\int_3^\infty \frac{du}{u^2}$$

$$\lim_{R\to\infty} \frac{1}{3}\int_3^R \frac{du}{u^2}$$

$$-\frac{1}{3}\cdot\frac{1}{u}\Big|_3^R$$

$$= -\frac{1}{3}\left(\frac{1}{R} - \frac{1}{3}\right)$$

$$= \frac{1}{9}$$

(B)

(19) $y = 3x^5 + 10x^4$

$y' = 15x^4 + 40x^3$

$y'' = 60x^3 + 120x^2 = 0$

$60x^2(x+2) = 0$

where does y'' change sign?

(B)