

Math 11A
R Mont
section 1.414
TA: Leibniz
Jan 8, 2020

HW 1.

From OpenStax ch 3 Review.

382. Compute the third derivative of
 $y = (3x+2)^2$.

$$\begin{aligned}y &= (3x+2)^2 \\ &= (3x)^2 + 2 \cdot (3x) \cdot 2 + 2^2 \\ &= 9x^2 + 12x + 4.\end{aligned}$$

$$\begin{aligned}\Rightarrow y' &= 9 \cdot (2x) + 12 \\ &= 18x + 12\end{aligned}$$

(power rule)
+ linearity

$$\Rightarrow y'' = 18$$

$$\Rightarrow y''' = 0.$$