

#### Mathematics, Computer Science and Physics Department





# Engaging Work

Use linear opproximation to find. 328.  $= x^{\frac{1}{3}} + f(27) = 3\sqrt{27} = 3 \quad \text{point}(27,3)$  $\frac{1}{3x^3}$  Slope  $f'(27) = \frac{1}{3(27)^3} = \frac{1}{3\cdot 9} = \frac{1}{27}$  Slope  $y_{\text{ope}}$ ,  $y_{-y_1=m(x-x_1)}$   $L(x)=3+\frac{1}{27}(x-27)$  $\begin{array}{c} y_{-3=\frac{1}{27}}(x-27) \\ +3+3 \end{array}$  $r = 3 + \frac{1}{27} (1)$ 3+0.037 = 3.037 Pairings Conjecture: The average sales per day Exceeds \$27000. H, + H.: M = 27000) > H1: 1 > 27000 (claim)

## Engaging Work



O You borrowed \$ 1150 for 5 years with simple interest & = 12k 7.55% too much you have to pay back to the fender? p = 1150 $r = \frac{7.55}{100} = 0.0755$  $I = \frac{\text{prt}}{150(0.0755)(5)}$ = 434.13 A=P+I A=P+I = 1150 + 434 13 = 1584 13) A = & A total \$ 18000 is invested at an annual interest vate of 4.45% Ful the balance after 7 Years If It Is compounded quarterly 180% 111 MA 6501 36 (10 C2 ^ 4727/2022

# Engaging Work















