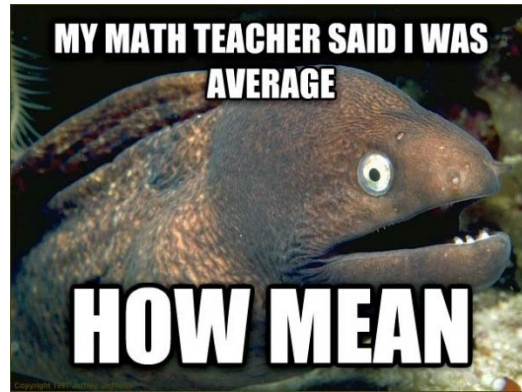


Tuesday, March 7

- ◇ OPENER - ORANGE HALF-SHEET
- ◇ 8.2 - AREA IN THE Y-DIRECTION, AREA ON THE CALCULATOR
- ◇ PRACTICE - WHITE SHEET

CML #3 - Extra Credit - 7:10 am Thursday  
Quiz 8.1-8.2 Friday!  
HW 8.2 Due Friday!!



Happy Birthday, Duncan!

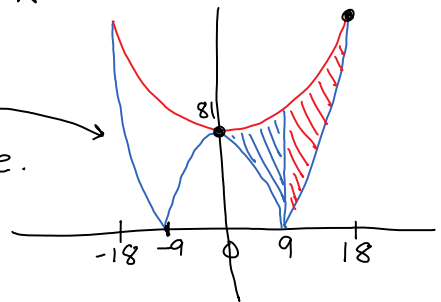
online → 8

$$y = |x^2 - 81|$$

$$y = \frac{x^2}{2} + 81 \text{ Red}$$

Piecewise Function:  
→  $y = -x^2 + 81$  Blue →  $[-9, 9]$   
→  $y = x^2 - 81$  →  $[-18, 9] \cup [9, 18]$

Find Blue area + Red area and double.



$$A = 2 \left[ \int_0^9 \left[ \frac{x^2}{2} + 81 \right] - (-x^2 + 81) dx + \int_9^{18} \left[ \frac{x^2}{2} + 81 \right] - (x^2 - 81) dx \right]$$