Review Day

Make Good choices

① Don't use the Product Rule!! Why?

$y = 5x^3$, $y = \frac{1}{5}(x^2 - 3x + 1)$

$y = 5x^3(x-3)$ $\quad$ $y = \frac{2\pi x}{\sqrt{3}}\left(\frac{5}{2} - \frac{\pi}{x}\right)$

② Don't use the Quotient Rule!! Why?

$y = \frac{5}{x}$ $\quad$ $y = \frac{5}{(x-2)^7}$

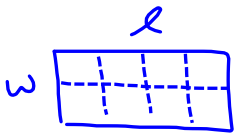
$y = \frac{5x^3 + 6x^2 - 7x}{3\sqrt{x}}$

If you want a nice factored derivative function, then using the Product Rule is probably a good idea especially when the denominator is a radical.

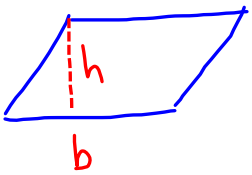
Ex: $y = \frac{5x^3 + 6x^2}{(x-3)^{\frac{1}{3}}} = (5x^3 + 6x^2)(x-3)^{-\frac{1}{3}}$

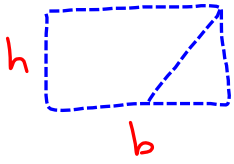
Gr. 9 Measurement Formula UNDERSTOOD

2-D: Everything is a Rectangle

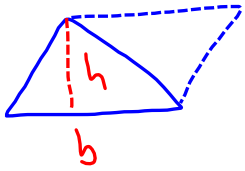
1. 

$A = \ell w$

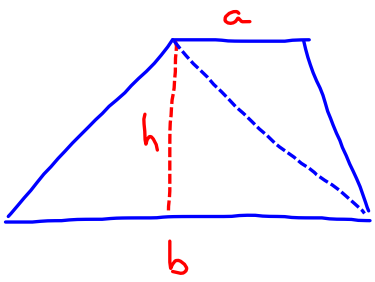
2. 



$A = bh$

3. 

$A = \frac{bh}{2}$

4. 

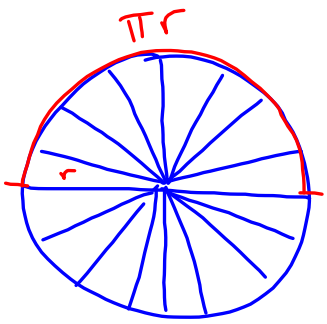
$A = \frac{ah}{2} + \frac{bh}{2}$

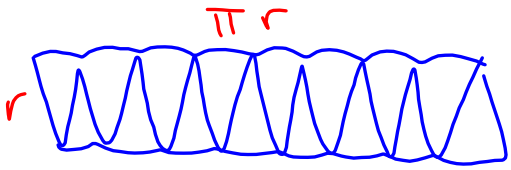
$= \frac{h(a+b)}{2}$

(5) $\frac{C}{d} = \pi \quad \therefore \quad C = \pi d$

$= 2\pi r$

(6)





$A = (\pi r)(r)$

$= \pi r^2$

(7) Prisms + Pyramids (Including Cylinders + Cones)

$V = BA \cdot h \qquad V = \frac{1}{3} BA \cdot h$

(8) Spheres

$SA = 4\pi r^2 \qquad V = \frac{4}{3}\pi r^3$