

## A TEN DAY SYLLABUS FOR PRECALCULUS

DAY 1: Teach them that  $\frac{a+b}{c}$  is  $\frac{a}{c} + \frac{b}{c}$

DAY 2: Teach them that  $\frac{a}{b+c}$  is **NOT**  $\frac{a}{b} + \frac{a}{c}$

DAY 3: Teach them that  $\frac{x}{\ln x}$  is **NOT**  $\frac{1}{\ln}$

DAY 4: Teach them that you can't solve  $(\sin(kx))=1$  by saying  $x = \frac{1}{\sin(k)}$

DAY 5: Remind them that  $\frac{a}{b+c}$  is **NOT**  $\frac{a}{b} + \frac{a}{c}$

DAY 6: Show them a movie of a student sitting in a field, writing  $(a+b)^2 = a^2 + b^2$  and then getting HIT BY A TRAIN!

DAY 7: Remind them that  $\frac{a}{b+c}$  is **NOT**  $\frac{a}{b} + \frac{a}{c}$

DAY 8: Teach them that if the domain of the function  $f$  is the reals, the graph of  $y = f(x)$  is NOT a blank pair of axes, that perhaps they should adjust the "window"

DAY 9: Remind them that  $\frac{x}{y+z}$  is **NOT**  $\frac{x}{y} + \frac{x}{z}$

DAY 10: Group work: Bring a trout to class. Have them solve  $(\sin(kx))=1$ .

If they get  $x = \frac{1}{\sin(k)}$  hit them with the trout. Make it a big trout.