

Day One – Mathematical Modeling

Problem 1.

After becoming a proud parent, you discover that feeding junior is not as easy as it's cracked up to be. He is supposed to have an 8 ounce bottle, warmed and sterilized, and the bottle is supposed to contain 80 calories. The problem is that the formula you have has 25 calories per ounce. You can mix the formula with water, but how much of everything should you put on the bottle?

Problem 2.

You find a freaking awesome stereo system your second week of college. Unfortunately, you have no money and it costs 800 bucks. However, the sales guy lets you know that they're having a 20% off sale next month. Now you're not loaded, but you do have this sweet job in the library where you check out chicks at the front desk for \$6 an hour. (They say they pay you more, but that's what actually comes in your paycheck.) How much are you going to have to work to get your smoking subwoofers?

Homework:

1. The President has determined that the 78,000 Taliban fighters in the mountains of Afghanistan are fools that must be pitied ASAP. The President logically calls upon Chuck Norris and Mr. T. Now, if Chuck Norris can pity all 78,000 fools in 5 days, and if Mr. T (the recognized world leader in fool-pitying) can pity the same number of fools in 2 days, how long would it take Chuck and T to pity the Taliban if they worked together? (extra points for expressing your answer in days, hours, minutes, seconds format)
2. The Pronghorn Antelope, one of the fastest land animals on Earth, can reach a top speed of 61 mph. Chuck Norris, *the* fastest land animal on Earth, can run at 84 mph. Starting at the same point, if Chuck gives the antelope a one hour head start, how long until he seizes and consumes the antelope raw? (extra points for expressing your answer in days, hours, minutes, seconds format)
3. Chuck Norris' "blood" is really a combination of 15% human blood, 38% gasoline, and 47% hate. If the total volume of blood in Chuck's body is 4.7 liters, and if gasoline sells for \$3.55/gallon, estimate the value of the gasoline in Chuck's blood.
4. When Chuck Norris was born, he could perform four lethal roundhouse kicks per second. By the time he was 3, however, he could perform 18 such kicks per second. Assuming Chuck's roundhouse kick prowess increases linearly, estimate the number of kicks per second he will be able to perform when he reaches 178 years old.