

THINKING THE CALCULUS WAY

HOMEWORK 1

For TUESDAY, June 29:

Read sections 1.1 and 1.2 of Stewart's Calculus

Complete the following problems in sections 1 and 2:

1.1 : Problems 1, 7, 8, 13, 14, 18, 24, 42, 47, 49, 57, 59

1.2 : Problems 3, 4, 6, 9, 12

For WEDNESDAY, June 30:

Read section 1.3 of Stewart's Calculus

Complete the following problems in section 3:

1.3 : Problems 1, 2, 9, 11, 14, 17, 37, 44, 49, 61, 63, 64

EXTRA PROBLEMS (can be handed in any day this week):

1. Suppose a rope is tied tightly around the equator. How much rope would you have to add so that it sits one foot above the earth's surface everywhere? Now do the same problem for a basketball. What do you notice?

2. Two people, A and B, have the following conversation:

A: I forgot how old your three kids are.

B: The product of their ages is 36.

A: I still don't know how old they are.

B: The sum of their ages is the same as your house number.

A: I still don't know how old they are.

B: The oldest has red hair.

A: Aha, now I know how old they are!

How did A figure it out?