

## Homework Assignments

### Math 128 – Calculus 2

#### Block 8 2004

All homework is due at 4:30 PM on the given day. You should look at and work on *all* of the homework problems, however, only the underlined ones will be graded and commented on. The homework is meant to deepen your understanding of the course material. If you feel that you understand a non-underlined problem already, feel free to move on to the next one. By contrast, if you are stuck on any problem, even one I have not assigned, please ask about it in the problem sessions or during my office hours.

Just because this is a mathematics course does not mean that you are freed from including English words in your answers. It is always helpful to the person reading your work to include explanations, and it's a good habit to get into. Some of the problems assigned will require explanations, and your answer will be incorrect without it. Other problems will be more likely to be marked correct if the grader understands what you intended. You will also find that you understand the material much better if you make the effort to explain your thought processes.

#### Homework due Tuesday, April 20:

Section 5.1: 1, 2, 4, 7, 9, 10, 19, 34, 37, 40, 44

Section 5.2: 3, 4, 5, 51

Section 5.3: 1, 2, 3, 4, 16, 29, 30, 64

#### Homework due Wednesday, April 21:

Section 5.4: 21, 22, 24, 40, 74

Section 8.1: 1, 9, 13, 26, 38, 45, 46, 47, 60

#### Homework due Thursday, April 22:

Section 5.5: 38, 40 (feel free to use Mathematica for these)

Section 5.6: 1, 2, 16, 25

Section 5.7: 2, 5, 21, 22, 45

#### Homework due Friday, April 23:

Section 6.1: 15, 16, 17, 18, 29, 20, 28, 29, 30, 31, 32, 61

Section 6.2: 2, 4, 13, 14, 24

#### Homework due Monday, April 26:

Section 7.4: 1, 5, 9, 12, 13, 21, 22, 24, 25, 30

Extra Credit Problem: A mathematics professor pours himself a cup of piping hot coffee, and realizes that it's too hot to drink. He only has 5 minutes to let it cool before he has to get to class, but he has a small amount of room-temperature non-dairy coffee creamer that he can use to help cool the coffee down. The dilemma: Should he add the creamer immediately, or after the 5 minutes are up? Which option will cool the coffee down the most?

Solutions to this problem should be turned in to me, not the homework box.

**Homework due Tuesday, April 27:**

Section 4.1: 7, 8, 9, 10, 11, 12, 13, 14, 23, 25, 29

Section 6.3: 8, 9, 15, 16

**Homework due Wednesday, April 28:**

Section 7.1: 8, 38, 43, 44, 54

Section 7.2: 6, 11, 14, 21, 22, 28, 31, 35

**Homework due Thursday, April 29:**

Section 7.3: 8, 14, 15

Section 7.5: 1, 2, 5

Interlude: Mass and Center of Mass: 3, 5, 7, 9

**Homework due Friday, April 30:**

Section 9.1: 14, 25, 26, 34, 35, 43, 44

Section 9.3: 11, 12, 18 (For this problem, graph the Fourier polynomial you obtained together with the function to check the accuracy of the approximation.)

**Homework due Monday, May 3:**

Section 10.1: 7, 20, 36, 48, 50

Section 10.2: 19, 20, 29, 32

Section 10.3: 4, 5, 19, 20, 25, 27

**Homework due Tuesday, May 4:**

Section 11.1: 3, 4, 7, 8, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 42, 46, 47, 52, 53

**Homework due Wednesday, May 5:**

Section 11.2: 1, 7, 8, 11, 12, 13, 14, 20, 21, 24, 27, 28, 33, 34, 37, 38

**Homework due Thursday, May 6:**

Section 11.2: 39, 42, 51, 53, 56, 57

Section 11.3: 5, 8, 41, 46, 47, 49, 51, 52

**Homework due Friday, May 7:**

Section 11.4: 19, 20, 21, 24

Section 11.5: 7, 8, 11, 12, 13, 14, 17, 20, 27, 28, 29, 30, 47, 49

**Homework due Monday, May 10:**

Section 11.6: 5, 8, 9, 10, 19, 23, 26, 35, 47

Section 11.7: 3, 12

**Homework due Tuesday, May 11:**

Section 4.4: 3, 10, 12, 13, 15, 19, 20ab

**Homework due Wednesday, May 12:**

Study for the final, and have a great summer!