

**MATH 281 FALL 2023  
HOMEWORK 5  
“DUE” OCTOBER 30, 2023.**

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**Required problems:**

(Quiz problems drawn from these.)

- Section 14.1: 9, 17, 23, 29, 32, 33, 36, 44, 47, 56, 61–70.
- Section 14.2: 9, 15, 21, 22, 25, 29, 30, 31, 33, 40, 43, 53, 57.

If you got help with one of these problems, solve a similar one on your own!

**Suggested challenge problems:**

(Conceptually interesting problems in the text to think about. Will not be on a quiz.)

- If you're in economics, try problems 14.1.18 and 14.1.81: I think the Cobb-Douglas model is taken fairly seriously in economics, and 14.1.81 explains how one fits it to data.
- 14.1.73 and 74 are a good preview of things to come. 14.1.77–80 are also good practice in thinking about graphs.

**Comments on some of these problems:**

- 14.1.9: in case you have the metric version of the book, the non-metric one has  $S = f(w, h) = 0.1091w^{0.425}h^{0.725}$  where  $w$  is in pounds and  $h$  is in inches.
- 14.2: I listed quite a lot of problems above, though they should be pretty quick once you get the hang of it. Notice that there are *a lot more* problems available to practice in the book, though, if you need them.

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