

## Chapter 12: The Regression Line

This chapter will show how to get the equation of the regression line in the form  $y = mx + b$ , once  $r$  and the averages and SDs for  $x$  and  $y$  have been found.

Section 12.1: Read carefully. Very important idea: top part of box on page 204.

On example 1 on pages 205-206, we will get  $b$  the intercept by the method on the worksheet. It is easier.

Suggested problems for study: A: page 207: 1–3.

Section 12.2: Important: box on page 208. The rest of this section is optional.

Suggested problems for study: B: page 211: 2; and (not too important) 1, 3, and 4.

Section 12.3: Skip.

**Chapter Summary:** pages 216 and 217: 1, 2, 4, 6, and 9 are important.

### Review Exercises

**Homework** (pages 213–216): 1, 5, 7, (also problem 4 in Chapter 6, found on page 104)

### Comments on HW:

Problem 1 is a *very important* application of the fundamental procedure of chapter 12.

Problem 5: (hint) look at section 10.5.

Problem 7 is very important. What do we know about the regression line? Is it possible to do this problem without knowing  $r$  explicitly? In this problem, is there another way to get the slope besides using the formula on page 204?

Also look at problems 2, 3, 6, 8, 9, and 11 on pages 214–216; and (more difficult) problem 10 on page 215. Of those problems 3, 8, and 9 are the most helpful.

**A useful practice problem:** ch12practice, found under Chapter Problems.