

Go over quiz problems.

Discussion about Test 2 Retest.

- Students will receive grades on this retest, and may review the retest in my office, but the retest itself will not be returned.
- No student should take the retest until (s)he can work every problem on Test 2 correctly.
- Students who need additional time after April 15 to take the retest may ask for extra time. (Tests taken after April 15 may not be graded before the last day to withdraw from the course.)
- All students should prepare to take Test 3 on time, which will be in the Testing Center shortly after April 15.

Recall:

- Lesson 4 covers the harvest model, where we looked at how the cost and revenue **per fish** depend on the size of the fish population. This model lets us find the **profit per fish**.
- Lesson 5 covers the business model, where we look at the bigger picture, including fixed costs, in addition to the cost per fish. This model lets us find the **profit for a whole year**.
- Lesson 6 **applies the business model to several years in a row**. This is important when we might need to make a substantial investment in one year that won't really pay off until the following year or maybe even after two years.

Answer to the classwork and homework today are on the course answer page from Blackboard.

Classwork: Activity 1, pages 54-55. Problems 1, 2, 3, 4. (For problems 1 and 2, write on the tables provided at the end of this handout.)

Read the bottom of page 53. How can Ahab increase his income? Look at the title of this section for a hint. Answer: \_\_\_\_\_

If he does this, what are the main two things that will change after it? (number of fish caught and fixed costs.)

Table 4.6 on page 54 has three rows. (The answers are all numbers, not formulas.)

The first row is for last year. That was discussed last time, Lesson 5, pages 41-43. The number of fish caught is in Activity 1, problem 1 (page 43.) The information about revenue and cost is the same as on pages 41-42. Fill in the first row for last year.

What changes when we go to the next row, for the current year? He bought a big net and paid cash for it and he also has to pay more cost per fish during this second (current) year. Read the top of page 54 and fill in the current year row.

Answers: What changes? More fish caught, higher fixed costs because he has to pay for the net, higher cost per fish because the boat uses more gasoline, requires more repairs, etc.

What changes when we go to the last row, which is for next year? Fill in the last row.

Answers: His number of fish caught still stays high. His fixed costs drop back down because he paid off the big net last year.

Table 4.6 on page 54 has three rows. (Some formulas, some numbers.)

For last year, write the business model, with a Revenue formula and a Cost formula. Use the values in the Table 4.6 above for the last year.

Write the Revenue and Cost formulas for the current year.

Write the Revenue and Cost formulas for the next year.

Remember that Profit = Revenue – Cost. Write the Profit formula for each year.

In order to finish the table, you need to have a value for  $x$ , which is the number of fish caught/sold in that year and then use that  $x$  to compute the profit or loss. You have that  $x$ . It is in the previous table.

Homework: Activity 1, pages 54-55. Problems 5, 6, 7, 8. (Don't write on the table in your book. You will need to turn this in, and I don't want you to tear the page out of your book. Just copy the table to your homework paper and fill it in.)

Quiz: Homework, pages 56-57. 1, 2, 3

1. Don't write on the table in your book. Copy the table to your quiz paper and fill it in.
2. Answer the question as stated.
3. Read question 3. Answer question 3 in **one** of these three ways:
  - a. Answer it as it was stated.
  - b. Make some appropriate assumptions and make a set of tables to do the algebra to analyze Quid's position if he buys the new net.
  - c. Answer Quid in words – that is, write a paragraph or two.

Lesson 6. Table 4.6. Summary of Effects of Larger Net Size on Current Year and Next Year

	Yearly Catch Size	Market Price per fish	Fixed Costs	Cost per fish
Last Year (small net)				
Current Year (big net)				
Next Year (big net)				

Lesson 6. Table 4.7. Effects of Larger Net Size on Business Model

	Business Model	Profit Equation	Profit or Loss
Last Year (small net)	R =  C =	P =	
Current Year (big net)	R =  C =	P =	
Next Year (big net)	R =  C =	P =	