

Comments on Chapter 5 HW

Problem 2 – Worksheet 5.1

1. You may assume a down payment of \$0 on the lease since none is listed.
2. You don't need to fill in the dollar/months/percent part of line 14, since you are told already to use \$340 as the line 14 amount.

Problem 8 – Worksheet 5.3

As an explanation of how we got from our textbook formula for monthly payment per \$10,000 loan amount (as demonstrated on the board twice) to the line 10 calculation:

If we started with the amount of \$144,780.54 (which, remember is just for principal and interest, not PITI), we would determine the monthly payment per \$10,000 by using the approach in the book:

Line 9: use Exhibit 5.11 on page 199 to get \$73.38 as the tabled amount per \$10,000

$\$144,780.54 / \$10,000 \times \$73.38 = \$1,062.40$. This is the amount we have in line 6.

In this problem, though, we know that \$1,062.40 is the maximum *monthly payment*, and we need to solve for the principal amount of the loan. We can rearrange the above formula to solve for the maximum loan in line 10 by multiplying both sides of the above formula by 10,000 and dividing both sides by 73.38:

$$\begin{array}{rcl} \$X & = & \frac{1,062.40 \times 10,000}{73.38} \end{array}$$

$$\begin{array}{rcl} \$X & = & \text{maximum loan based on monthly income} \end{array}$$

$$\begin{array}{rcl} \$X & = & \underline{\underline{\$144,780.54}} \end{array}$$

Problem 10 – Worksheet 5.4

Copy the \$504 from the problem to line 1, and \$415 from the problem to line 2.