MAT 142 Finance Project

Buying a house

Suppose you have saved $15,000 towards a down payment on a home, and your total household income is $40,000 per year.

1. What is the most you could afford to pay for a home from the given values of 100,000 or 125,000 or 150,000 or 175,000 assuming the following guidelines? (justify your reasoning with calculations)

(i) your insurance cost will be .25% of the value of your home,

(ii) your taxes will be 2% annually,

(iii) your closing cost will be about $2,000 and

(iv) you can obtain a fixed rate mortgage for 30 years at 6.5% interest with monthly payments.

In your decision you will have to consider the following general guidelines:

Many banks are allowing up to 38% of the borrower's monthly income (before taxes) to go for mortgage payment, property taxes, and homeowner's insurance, assuming that there are no other significant debts such as car payments, credit card payments etc.

Hint: Fill out the table below to make your decision:

<table>
<thead>
<tr>
<th>Value of home</th>
<th>Insurance/mo month</th>
<th>Prop tax/month</th>
<th>Mortgage pymt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>100,000</td>
<td></td>
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</tr>
<tr>
<td>125,000</td>
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<tr>
<td>150,000</td>
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<tr>
<td>175,000</td>
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<td></td>
</tr>
</tbody>
</table>

2. (a) What is your monthly mortgage payment in question 1?
(b) Find the total interest you will pay for the house.
(c) Prepare an amortization schedule for the first three months. (for extra credit use excel and find it for first 5 years)

3. Assume that you only have $10,000 today and you want to have the $15,000 for the down payment two years from today. What monthly payments will you have to pay to reach this goal if the bank offers 5 ¼%.