

Math 105 – Section 003
Instructor: Prasad
Worksheet – Chapter 10

Please do all the work on a separate sheet of paper.

1. If a family's annual income is \$60,000, what do the first two affordability guidelines tell them regarding the purchase price and monthly payments for a potential home purchase?
2. If a couple has a combined monthly income of \$2,500, what do affordability guidelines tell them regarding purchase price and monthly housing expenses?
3. The Marrs family is going to borrow \$95,000 for a new house. If there is a 2.25 points loan origination fee and .75 points for a discount charge, what are their costs for these two items?
4. There is a 1.5 point loan origination fee and no discount charge on a \$115,000 loan. What is the fee for this loan?
5. Jim has saved money to buy a home and has \$19,000 for a down payment. The realtor says that he should expect a 20% down payment. What is the maximum price he will be able to afford based upon the down payment?
6. Jim has saved money to buy a home and has \$19,000 for a down payment. The realtor says that there is a special loan for first-time buyers, and he would only need a 5% down payment. What is the maximum price he will be able to afford based upon the down payment?
7. A family decides to buy a home at an agreed upon price of \$135,000. They will make a down payment of 20% and finance the rest at 6% for 30 years. The origination fee is 3 points and the discount charge is 1.25 points. How much money is needed at closing, and what is the mortgage payment?
8. If one has calculated the mortgage payment to be \$859, what are the total monthly house expenses if the annual property tax is \$2,200 and the annual homeowner's insurance is \$450?
9. Calculate the total monthly house payment. Assume a standard 20% down payment.
House Price = \$140,000
Mortgage interest rate = 9%
Term = 30 years
Property Taxes = 2.5% of the House Price (usually assessed value but we will use the house price)
Homeowner's insurance = \$650 a year
10. a) Calculate the total amount needed at closing. Assume a standard down payment.
b) Calculate the monthly mortgage.
c) Calculate the sum of all the mortgage payments. Calculate the total price of this house paid to the bank. (All the mortgage payments plus money needed at closing.)
d) Calculate the monthly house payment.
e) What must be the minimum annual income required? (Must calculate for both guidelines.)

House price \$200,000
Mortgage interest rate = 8%
Term = 20 years
Property taxes = 2.5% of House Price
Homeowner's insurance = \$480
Origination fee = 1.25-points
Discount charge = 1-point
Other closing costs = \$1,800