Math 112 - Quiz 8

November 3, 2016

Name __key__

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (6 points) A house sells for $145,000 and a 15% down payment is made. A mortgage is secured at 4.35% for 30 years.

   (a) What amount is financed?

   $$(0.15)(145000) = 21,750$$

   $$145000 - 21750 = 123250$$

   $123,250.00$

   (b) What is the monthly payment?

   $$R = \frac{123250\left(\frac{0.0435}{12}\right)}{\left(1 - \left(1 + \frac{0.0435}{12}\right)^{-360}\right)} \approx 613.55$$

   613.55

   (c) When the loan is paid off in 30 years, what will be the total interest paid?

   $$(613.55)(360) - 123250$$

   $$= 97628$$

   $97,628.00$

2. (4 points) Referring to the loan above, compute the first 3 rows of the amortization schedule. Include the interest, amount paid to principal, and the outstanding balance.

STARTING BALANCE = 123,250

PAYMENT = 613.55

Payment #	Interest	Principal Paid	Balance
1	446.78	166.77	123,083.23
2	446.18	167.37	122,915.86
3	445.57	167.98	122,747.88