

MasterMath

Name _____

Installment Loans

Date _____

1. Your home mortgage is for \$265,000. The mortgage is for 30 years at 4.5% interest, and payments of \$1,337.70 per month. How much interest would you pay the bank during the 2nd month of the loan? How much interest would you pay over the term of the loan?



Month	Balance Before Payment	Monthly Interest	Balance After Payment
1	265000	$265000 * .00375 = 993.75$	$265000 - 1337.70 + 993.75 = 264656.05$
2	264656.05	$264656.05 * .00375 = 992.46$	$264656.05 - 1337.70 + 992.46 = 264310.81$

2nd month interest	\$992.46
total term interest	\$216,572

2. You agree to an installment loan to purchase a \$16,000 car. You make a \$1,500 down payment, get a 5 year term at 4% interest, and the monthly payments are \$266.15. How much interest would you pay during the entire term of the loan?



\$1,469.00

3. In which case would you pay more interest: 1) a 30 year mortgage of \$100,000 at 3.5% with payments of \$447.74 per month; or 2) a 25 year mortgage of \$100,000 at 4% interest with monthly payments of \$526.08?

The 30 year mortgage cost more in interest.

4. The installment loan for your jet ski has an original Principal Amount of \$4,500 at 9% interest. The 36 monthly payments are \$142.03. Through the entire term of the loan, how much interest would you pay?

\$613.08

5. Complete the table for a 5 year installment loan of \$5000 at 12% interest?:

Month	Payment	Balance Before Payment	Monthly Interest	Balance After Payment
1	\$110.12	\$5,000.00	\$50.00	\$4,939.88
2	\$110.12	\$4,939.88	\$49.40	\$4,879.16
2	\$110.12	\$4,879.16	\$48.79	\$4,817.83