Analyzing Mortgage Rates Answer Key

Name: Date:

**Instructions: Use the following information and this mortgage rate calculator** [**https://www.calculator.net/mortgage-calculator.html**](https://www.calculator.net/mortgage-calculator.html) **(uncheck the “include taxes and costs” box) to help you complete the chart below.**

Mortgage 1: Benny and Silvia Ramirez pay 20 percent down. It is a 30-year fixed-rate mortgage with an annual interest rate of seven percent.

Mortgage 2: James and Linda Snyder qualify for a special down payment of only five percent. Their mortgage is a 30-year fixed-rate with an annual interest rate of seven percent.

Mortgage 3: Seth and Avery Alexander qualify for a special program that lowers their fixed annual interest rate to six percent. They make a 20 percent down payment on their 30-year, fixed-rate mortgage.

Mortgage 4: Amari Botha knows that paying off a mortgage more quickly will save her money. She makes a down payment of 20 percent and her mortgage is for a fixed-rate of 5.5 percent. Because she will pay off the mortgage in 15 years, her annual interest rate is lower than she would have paid for a 30-year mortgage.

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| --- | --- | --- | --- | --- |
|  | Mortgage 1 | Mortgage 2 | Mortgage 3 | Mortgage 4 |
| Home Price | $250,000 | $250,000 | $250,000 | $250,000 |
| Percentage down  | 20% | 5% | 20% | 20% |
| Total down payment | $50,000 | $12,500 | $50,000 | $50,000 |
| Initial principal | $200,000 | $237,500 | $200,000 | $200,000 |
| Annual interest rate | 7% | 7% | 6& | 5.5% |
| Term | 30-year fixed | 30-year fixed | 30-year fixed | 15-year fixed |
| Monthly payment | $1,330.60 | $1,580.09 | $1,199.10 | $1,634.17 |
| Total interest paid | $279,017.80 | $331,333.63 | $231,676.38 | $94,150.04 |
| Total loan amount | $479,017.80 | $568,833.63 | $431,676.38 | $294,150.04 |

1. As compared to Mortgage 1, what happens to the monthly payment and total payment for a loan with a smaller down payment? [Both the monthly payment and total payment are higher.]
2. As compared to Mortgage 1, what happens to the monthly payment and total payment for a loan with a lower annual interest rate? [Both the monthly payment and total payment are less.]
3. What happens to the monthly payment and total payment if the term of the mortgage is 15 years rather than 30 years? [The monthly payment is higher, and the total payment is much lower.]
4. What is the trade-off if you get a 15-year mortgage rather than a 30-year mortgage?

 [You pay more each month, which is tough on the budget. However, you save a lot in interest.]

1. How can you reduce your cost of buying a home? [This is a good question for closure. Make a larger down payment, shop for the lowest interest rate, buy a smaller house, and pay off the loan as quickly as possible.]