

Home Purchasing and Exponential Growth

$$y = P(1 + r)^t$$



Name _____

Exponential Growth and Home Buying

Use the properties shown below to figure out how much you will pay through the life of the loan. $y = P(1 + r)^t$



Home 1:

1 BR/1 Bath 742 sq. ft. Condo

Located downtown Portland/NW Portland

Sale Price - \$229,000

Calculate what you will pay during the life of the loan with an interest rate of:

3.5% 30 year fixed _____ 15 year fixed _____

4.5% 30 year fixed _____ 15 year fixed _____



Home 2:

3 BR/2 Bath 1,040 sq. ft.

Located in outer SE Portland

Sale Price - \$325,000

Calculate what you will pay during the life of the loan with an interest rate of:

3.5% 30 year fixed _____ 15 year fixed _____

4.5% 30 year fixed _____ 15 year fixed _____



Home 3:

3 BR/3 Bath 2,220 sq. ft.

Located in NE Portland

Sale Price - \$536,900

Calculate what you will pay during the life of the loan with an interest rate of:

3.5% 30 year fixed _____ 15 year fixed _____

4.5% 30 year fixed _____ 15 year fixed _____



Home 4:

5 BR/3.1 Bath 2,878 sq. ft.

Located in inner SE Portland

Sale Price - \$995,950

Calculate what you will pay during the life of the loan with an interest rate of:

3.5% 30 year fixed _____ 15 year fixed _____

4.5% 30 year fixed _____ 15 year fixed _____

Down Payments

A down payment goes directly toward the principal of your home. The larger the down payment, the less interest you will pay. What will you end up paying over the life of the loan if you “put down” a percentage of the principal upfront? We will use the same homes from the previous page so you can compare numbers. $y = P(1 + r)^t$

Home 1: Sale Price - \$229,000

You found the perfect place near your downtown office! You will even save money on parking by walking to work so you sold your car for a larger down payment. You made \$22,000 on your car and had another \$24,000 saved by choosing to live cheaply with several roommates to save for your new place. That is just over a 20% down payment of \$46,000!

3.5% 30 year fixed _____ 15-year fixed _____

4.5% 30 year fixed _____ 15-year fixed _____

Home 2: Sale Price - \$325,000

You have been living at your parent's house for the last 2 years to be able to save up a hefty down payment for your first home. You were able to save over \$2000 a month – giving you a 15% down payment of \$48,750! Recalculate what you will pay over the life of the loan with a \$48,750 down payment.

3.5% 30 year fixed _____ 15-year fixed _____

4.5% 30 year fixed _____ 15-year fixed _____

Home 3: Sale Price - \$536,900

Congratulations! You just got married! You and your partner are blessed with parents who understand that a large down payment will save you big in the long run. Together your parents have come up with \$100,000 as a wedding gift toward your new home. You add another \$7,380 to come up with an even 20% down payment. Recalculate what you will pay over the life of the loan with a \$107,380 down payment.

3.5% 30 year fixed _____ 15 year fixed _____

4.5% 30 year fixed _____ 15 year fixed _____

Home 4: Sale Price - \$995,950

You just received word a long-lost relative died and left you \$100,000! That is just over 10% of the purchase price of your dream home! Recalculate what you will pay over the life of the loan with a \$100,000 down payment.

3.5% 30 year fixed _____ 15 year fixed _____

4.5% 30 year fixed _____ 15 year fixed _____

Review your work: List 3 things you can do to make buying a home more affordable.

1. _____

2. _____

3. _____
