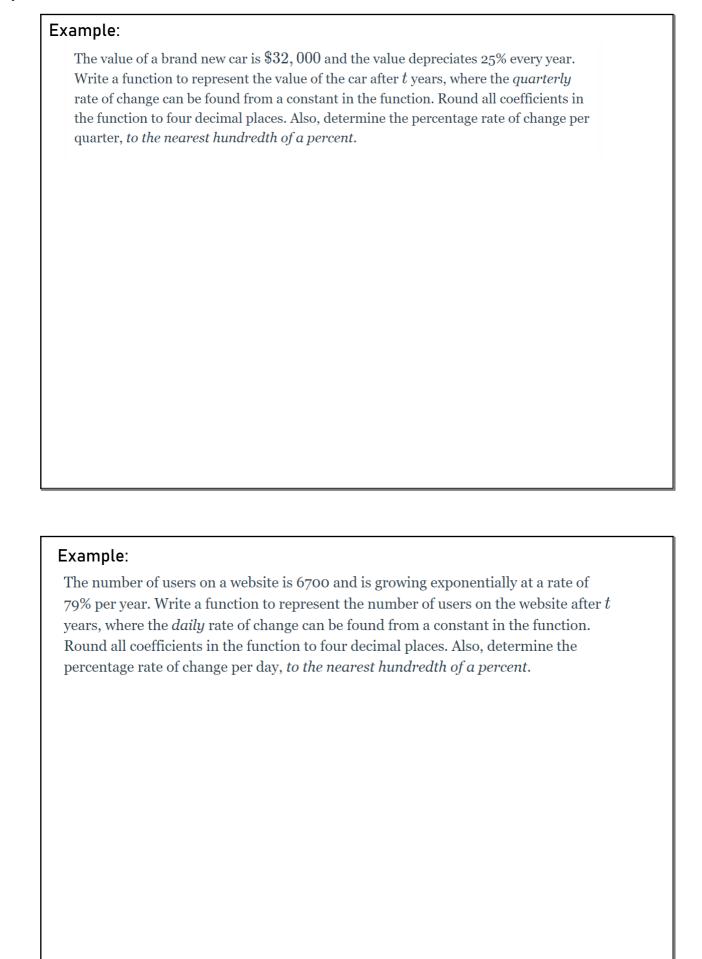


At times, it is appropriate to rewrite an exponential function in a different form to highlight or find a different value. Today, we will be rewriting to identify an equivalent interest rate.

In order to rewrite an exponential function to find an equivalent rate you will

- I. Write the function out using the given information
- 2. Determine which variable will be changing (the exponent)
- 3. Use properties of rational exponents to rewrite as necessary  $(b^x)^y = b^{x \cdot y}$
- 4. Simplify your new function
- 5. Use the values in your new function to determine equivalent rates

## **Equivalent Interest Rates NOTES.notebook**



## **Annual Equivalent Rates (AER)**

Annual equivalent rates can be used to compare two accounts with different compounding periods.

Annual equivalent rates give us a "level playing field" to compare.

$$AER = \left(1 + \frac{r}{n}\right)^n - 1$$

If this looks familiar, it should! AER just calculates the interest earned in one year!

## **Example**

Find the annual equivalent rate for an account that accrues 4.9% interest compounded weekly.

How does that compare to an account that earns 4.75% compounded daily?