Assign #2 MP2 Algebra Real-Life Compound Interest & Inflation F.LE.A.1,2

- What is the future amount of \$15,000 invested for 5 years at 11% compounded monthly?
- What is the future amount of \$900 invested for 2 years at 22% compounded daily?
- If \$3,000 is compounded quarterly at $6\frac{1}{4}\%$ for 10 years, what is the total interest received at the end of the decade?

You probably have heard of INFLATION, but what is it really?? Well, the inflation rate is an increase to the amount of actual currency (money you can hold in your hand). If that rate goes UP, the value of the dollar goes DOWN. (The more money in circulation, the more that can be spread around, so the 'less' it is worth...Like supply and demand). When that happens, PRICES GO UP UP UP!!! To do projections over time, we have to estimate what the inflation rate is/was/will be because it fluctuates. Below I have given you 5 different facts from 1988. Tell me what they would be worth today (hopefully it is close) using 6% as the inflation rate. (Note: There is no compounding involved here)

<u>McDonald's Burger</u>	<u>Median Salary</u>	Movie Ticket	Gallon of Gas	<u>Dozen Eggs</u>
\$0.62	\$27,225	\$3.50	\$1.08	\$0.89

• If you invest \$1,500 at 7% compounded weekly, how many years until you reach \$15,000?

• I purchased my home for \$280,000 and it should increase $4\frac{1}{2}\%$ every year compounded monthly. How many years until I reach \$350,000?

Your parents started you a college fund with \$1000 that grows at 5⁷/₈% each year compounded semiannually. How long until you have \$10,000? (BTW: its \$21,000 average for a public college currently)