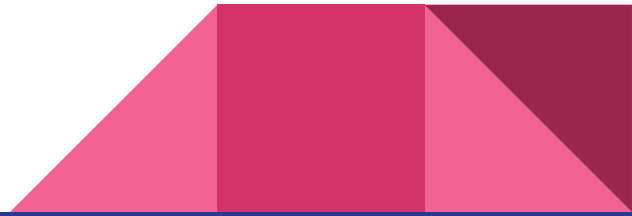
Learning Targets

Students will be able to:

- Recognize the difference between compound and simple interest
- Know the definitions of rate, time and principal
- Successfully use the rule of 72 to find out how long it will take an investment to double



FAST FACTS: SUCCESS STARTER, CHOOSE ONE FACT THAT STANDS OUT TO AND EXPLAIN WHY. .

- People spend on average 50% more when using a credit card than using cash (AARP, 2012)
- 66 million Americans say they have no emergency fund (CNBC, 2016).
- Nearly 7 out of 10 Americans have less than $1,000 in savings (Fool.com, 2015).
- Teens (14-18) help drive the economy. They bring a total of $91 billion in income every year (Credit Donkey, 2014)

Link for notes to follow along

https://docs.google.com/document/d/19qGTjNN0ffgvW3sYwu-1XPkG9K_Ab9-cq55NV8b9Jgo/edit?usp=sharing

Differences in Interest

Simple interest:

Interest paid one time a year on the average balance in a savings account.

Compound interest:

Interest paid on principal and on previously earned interest, assuming the interest is left in the account.

Interest =Principal X Rate X Time (I=PRT)

	Principal	Rate	Time
Definition	Money you have in your account	% bank will pay you on the $ in your account	Time period the interest is figured on
Examples	n/a	n/a	Daily 1/365 Monthly 1/12 Quarterly ¼ Semiannually ½ Annually 1

P=$100; R=8%

Year	Simple Interest Adds	Total Saving Using Simple Interest	Compound Interest Adds	Total Saving Using compound Interest
1	$8	$108	$8	$108
2	$8	$116	$9	$117
3	$8	$124	$9	$126
4	$8	$132	$10	$136
5	$8	$140	$11	$147

Rule of 72

- Rule of 72 is a simple way to illustrate the magic of compound interest.
- Rule of 72 calculates how long it will take you to double your money
  - 72 ÷ interest rate

Example of Rule 72

- How long would it take $100 to increase to $200 if your savings account is paying 5%?
- 72/5 =14.4 years

Rule of 72 problems

- How long would it take for an investment of 1,000 to turn into 2,000 assuming a 10% rate?
- How long would it take for an investment of 10,000 to turn into 20,000 assuming a 15% rate?
- How long would it take for an investment of 8,000 to turn into 16,000 assuming a 8% rate?

Interest Practice problems

https://drive.google.com/file/d/18Z0Xg7wM7hAES36qPnqO396xefX16bhC/view?usp=sharing