

Lesson 3 – Save and Invest: The Power of Interest

Visual 1: Simple and Compound Interest

If a saver deposits \$100 in an account that earns 5% interest, how will the balance grow over 10 years?

Year	Beginning Balance	Simple Interest Paid	Year-End Balance
1	\$100	\$5	\$105
2	\$105	\$5	
3	\$110	\$5	
4		\$5	
5		\$5	
6		\$5	
7		\$5	
8		\$5	
9		\$5	
10		\$5	\$150

Year	Beginning Balance	Compound Interest Paid	Year-End Balance
1	\$100.00	\$5.00	\$105.00
2	\$105.00	\$5.25	
3	\$110.25		
4			
5			
6			
7			
8			
9			
10			\$162.90

Why is compound interest better for the saver?

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Visual 2: Watch a Penny Grow in Value!

Day	Amount
1	\$0.01
2	\$0.02
3	\$0.04
4	\$0.08
5	\$0.16
6	\$0.32
7	\$0.64
8	\$1.28
9	\$2.56
10	\$5.12
11	\$10.24
12	\$20.48
13	\$40.96
14	\$81.92
15	\$163.84
16	\$327.68
17	\$655.36
18	\$1,310.72
19	\$2,621.44
20	\$5,242.88
21	\$10,485.76
22	\$20,971.52
23	\$41,943.04
24	\$83,886.08
25	\$167,772.16
26	\$335,544.32
27	\$671,088.64
28	\$1,342,177.28
29	\$2,684,354.56
30	\$5,368,709.12

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Visual 3: Rule of 72

The Rule of 72 is a shortcut that can be used to find out how many years it will take an investment to double in value using compound interest.

$$\text{Number of years to double} = \frac{72}{\text{Annual Rate of Return}}$$

If you invest \$50,000, how many years will it take for it to grow to \$100,000?

1. At 4% annual interest
2. At 6% annual interest
3. At 9% annual interest
4. At 12% annual interest

Name: _____ Date: _____

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Handout 1: Interest

If you save \$100 in an account that pays 10% simple interest, how will your original investment grow over 10 years? Round all values to a whole dollar amount.

Year	Beginning Balance	Simple Interest Paid	Year-End Balance
1	\$100	\$10	\$110
2	\$110		
3			
4			
5			
6			
7			
8			
9			
10			

If you save \$100 in an account that pays 10% interest and is compounded annually, how will your original investment grow over 10 years? Round all values to a whole dollar amount.

Year	Beginning Balance	Compound Interest Paid	Year-End Balance
1	\$100	\$10	\$110
2	\$110		
3			
4			
5			
6			
7			
8			
9			
10			

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Handout 1: Interest

Suggested Answers

If you save \$100 in an account that pays 10% simple interest, how will your original investment grow over 10 years? Round all values to a whole dollar amount.

Year	Beginning Balance	Simple Interest Paid	Year-End Balance
1	\$100	\$10	\$110
2	\$110	\$10	\$120
3	\$120	\$10	\$130
4	\$130	\$10	\$140
5	\$140	\$10	\$150
6	\$150	\$10	\$160
7	\$160	\$10	\$170
8	\$170	\$10	\$180
9	\$180	\$10	\$190
10	\$190	\$10	\$200

If you save \$100 in an account that pays 10% interest and is compounded annually, how will your original investment grow over 10 years? Round all values to a whole dollar amount.

Year	Beginning Balance	Compound Interest Paid	Year-End Balance
1	\$100	\$10	\$110
2	\$110	\$11	\$121
3	\$121	\$12	\$133
4	\$133	\$13	\$146
5	\$146	\$15	\$161
6	\$161	\$16	\$177
7	\$177	\$18	\$195
8	\$195	\$19	\$214
9	\$214	\$21	\$235
10	\$235	\$24	\$260