

# Interesting Information about Interest

## Interest

The price paid for using someone else's money.

## Interest Rate

The price paid for using someone else's money expressed as a percentage.

## Principal

Basic amount deposited, without adding interest earned.

## Simple Interest

Interest earned on the principal and paid out to a depositor.

## Compound Interest

Interest computed on the sum of the principal and previously earned interest.

## Compounding

The practice of leaving interest earned on deposit, so that it also earns interest.

# Simple Interest

A	B	C	D	E	F	G
Deposit Cycle	Beginning Balance (from previous G)	Deposited Amount	New Balance (B + C)	Rate of Interest	Interest Earned and paid out (D x E)	Ending Balance (D)
1	0	10	10	20%	2	10
2		10		20%		
3		10		20%		
4		10		20%		
5		10		20%		
6		10		20%		
Total						

# Compound Interest

A	B	C	D	E	F	G
Deposit Cycle	Beginning Balance (from previous G)	Deposited Amount	New Balance (B + C)	Rate of Interest	Interest Earned and paid out (D x E)	Ending Balance (F + D)
1	0	10	10	20%	2	12
2		10		20%		
3		10		20%		
4		10		20%		
5		10		20%		
6		10		20%		
Total						

Round decimals to the closest whole number.

## Answers to Exercise 13.1A Simple Interest

A	B	C	D	E	F	G
Deposit Cycle	Beginning Balance (from previous G)	Deposited Amount	New Balance (B + C)	Rate of Interest	Interest Earned and paid out (D x E)	Ending Balance (D)
1	0	10	10	20%	2	10
2	10	10	20	20%	4	20
3	20	10	30	20%	6	30
4	30	10	40	20%	8	40
5	40	10	50	20%	10	50
6	50	10	60	20%	12	60
Total		60			42	

## Answers to Exercise 13.1B

### Compound Interest

A	B	C	D	E	F	G
Deposit Cycle	Beginning Balance (from previous G)	Deposited Amount	New Balance (B + C)	Rate of Interest	Interest Earned and paid out (D x E)	Ending Balance (F + D)
1	0	10	10	20%	2	12
2	12	10	22	20%	4	26
3	26	10	36	20%	7	43
4	43	10	53	20%	11	64
5	64	10	74	20%	15	89
6	89	10	99	20%	20	119
Total		60			59	

Round decimals to the closest whole number.

## The Bank's Contribution

A	B	C	D	E	F	G
Deposit Cycle	Beginning Balance (from previous G)	Deposited Amount	New Balance (B + C) Rate of Interest	Rate of Interest	Interest Earned and left in account (D x E)	Ending Balance (F + D)
1	0	10	10.00	20%	2.00	12.00
2	12.00	0	12.00	20%	2.40	14.40
3	14.40	0	14.40	20%	2.88	17.28
4	17.28	0	17.28	20%	3.46	20.74
5	20.74	0	20.74	20%	4.15	24.89
6	24.89	0	24.89	20%	4.98	29.87
Total		10			19.87	29.87

## Factors That Affect How Money Grows

- Amount of money left on deposit
- Interest rate
- Length of time money is left on deposit

# Lesson 13 Assessment: Answer Key

**Beginning values:**

Amount \$5,000  
Interest rate 5%  
Time 5 years

**Change only the amount:**

**Amount \$10,000**  
Interest rate 5%  
Time 5 years

**Change only the interest rate:**

Amount \$5,000  
**Interest rate 10%**  
Time 5 years

**Change only the time:**

Amount \$5,000  
Interest rate 5%  
**Time 10 years**

Year	Year Start Balance	Interest Rate	Interest Earned	Year End Balance
1	\$5,000	5%	\$250.00	\$5,250.00
2	5,250.00	5%	262.50	5,512.50
3	5,512.50	5%	275.63	5,788.13
4	5,788.13	5%	289.41	6,077.54
5	6,077.54	5%	303.88	6,381.42
1	\$10,000.0	5%	500.00	10,500.00
2	10,500.00	5%	525.00	11,025.00
3	11,025.00	5%	551.25	11,576.25
4	11,576.25	5%	578.81	12,155.06
5	12,155.06	5%	607.75	12,762.81
1	\$5,000.00	10%	500.00	5,500.00
2	5,500.00	10%	550.00	6,050.00
3	6,050.00	10%	605.00	6,655.00
4	6,655.00	10%	665.50	7,320.50
5	7,320.50	10%	732.05	8,052.55
1	\$5,000.00	5%	250.00	5,250.00
2	5,250.00	5%	262.50	5,512.50
3	5,512.50	5%	275.63	5,788.13
4	5,788.13	5%	289.41	6,077.54
5	6,077.54	5%	303.88	6,381.42
6	6,381.42	5%	319.07	6,700.49
7	6,700.49	5%	335.02	7,035.51
8	7,035.51	5%	351.78	7,389.29
9	7,387.29	5%	369.36	7,756.65
10	7,756.65	5%	387.83	8,144.48

*\*If rounding of cents to the nearest whole number is not completed in each year, the answers will vary from the answer key.*