EXERCISE
20.2

THEME 5 | Lesson 20: What's the Cost of Spending and Saving?

NAME: _____ CLASS PERIOD: _____

A Tale of Two Savers

The following case study is about two people who saved money. Both of them earned 10 percent interest on the money they saved. (Of course, in the real world, the interest or rate of return on savings can differ greatly from year to year and from one savings institution to another.)

Ana Gutierrez started saving when she was 22 years old, right out of college. Saving involves an opportunity cost—the next-best alternative given up. It wasn't easy for Ana to save $2,000 a year then, considering her car loan, the expenses of operating her car, and rent payments. But Ana was determined to save because her grandmother always said it isn't what you make, but what you save, that determines your wealth. So, reluctantly, Ana gave up buying that new car and renting a really nice apartment, and she saved $2,000 a year. After 12 years, she got tired of the sacrifice, yearning for a brand new red sports car and other luxuries. She didn't touch the money she had already saved because she wanted to be sure she would have money for retirement, which she planned to do at the end of her 65th year. But she quit saving and hit the stores.

Shawn Wright didn't start saving until he was 34 years old. He also graduated from college at 22, but he had done without many things in college, and, once he found a job that gave him a decent income, he wanted to have some of those things he had done without. He bought a new car, a very nice wardrobe, and he took some wonderful trips. But spending his income involved an opportunity cost. By the time he was 34, Shawn was married; he had many responsibilities, and he decided he'd better start saving and planning for his financial future. He also had heard that it isn't what you have earned, but what you have saved, that determines your wealth. He figured he had 25 to 30 productive years left in his career. So, with new determination, Shawn saved $2,000 a year for the next 32 years until he retired at the end of his 65th year.

Which person do you believe had more savings at the end of his or her 65th year? Ana or Shawn?

Now let's see what really happened. Using information from the table at the end of this exercise, answer the following questions.

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Questions:

a. How much money had Ana put into savings by age 65?

b. How much money had Shawn put into savings by age 65?

c. How much in total savings (wealth) did Ana have at the end of her 65th year?

d. How much in total savings (wealth) did Shawn have at the end of his 65th year?

e. In money terms, what was the opportunity cost of Ana's savings decision? What was the benefit?

f. In money terms, what was the opportunity cost of Shawn's savings decision? What was the benefit?

g. In trying to build wealth, the amount saved is obviously important. What other factors are important? Why?

h. What are the incentives for saving early in life?

i. What was Ana's opportunity cost of saving early?

j. What conclusions can you draw from this activity?

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The Growth of Ana's and Shawn's Savings

Age	Interest rate	Ana Gutierrez			Shawn Wright		
		Saved	Interest Earned	Total saved at the end of the year	Saved	Interest Earned	Total saved at the end of the year
21	10%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
22	10%	$2,000.00	$200.00	$2,200.00	$0.00	$0.00	$0.00
23	10%	$2,000.00	$420.00	$4,620.00	$0.00	$0.00	$0.00
24	10%	$2,000.00	$662.00	$7,282.00	$0.00	$0.00	$0.00
25	10%	$2,000.00	$928.20	$10,210.20	$0.00	$0.00	$0.00
26	10%	$2,000.00	$1,221.02	$13,431.22	$0.00	$0.00	$0.00
27	10%	$2,000.00	$1,543.12	$16,974.34	$0.00	$0.00	$0.00
28	10%	$2,000.00	$1,897.43	$20,871.78	$0.00	$0.00	$0.00
29	10%	$2,000.00	$2,287.18	$25,158.95	$0.00	$0.00	$0.00
30	10%	$2,000.00	$2,715.90	$29,874.85	$0.00	$0.00	$0.00
31	10%	$2,000.00	$3,187.48	$35,062.33	$0.00	$0.00	$0.00
32	10%	$2,000.00	$3,706.23	$40,768.57	$0.00	$0.00	$0.00
33	10%	$2,000.00	$4,276.86	$47,045.42	$0.00	$0.00	$0.00
34	10%	$0.00	$4,704.54	$51,749.97	$2,000.00	$200.00	$2,200.00
35	10%	$0.00	$5,175.00	$56,924.96	$2,000.00	$420.00	$4,620.00
36	10%	$0.00	$5,692.50	$62,617.46	$2,000.00	$662.00	$7,282.00
37	10%	$0.00	$6,261.75	$68,879.21	$2,000.00	$928.20	$10,210.20
38	10%	$0.00	$6,887.92	$75,767.18	$2,000.00	$1,221.02	$13,431.22
39	10%	$0.00	$7,576.71	$83,343.84	$2,000.00	$1,543.12	$16,974.34
40	10%	$0.00	$8,334.38	$91,678.22	$2,000.00	$1,897.43	$20,871.78
41	10%	$0.00	$9,167.82	$100,846.05	$2,000.00	$2,287.18	$25,158.95
42	10%	$0.00	$10,084.60	$110,930.65	$2,000.00	$2,715.90	$29,874.85
43	10%	$0.00	$11,093.06	$122,023.71	$2,000.00	$3,187.48	$35,062.33
44	10%	$0.00	$12,202.37	$134,226.09	$2,000.00	$3,706.23	$40,768.57
45	10%	$0.00	$13,422.61	$147,648.69	$2,000.00	$4,276.86	$47,045.42
46	10%	$0.00	$14,764.87	$162,413.56	$2,000.00	$4,904.54	$53,949.97
47	10%	$0.00	$16,241.36	$178,654.92	$2,000.00	$5,595.00	$61,544.96
48	10%	$0.00	$17,865.49	$196,520.41	$2,000.00	$6,254.50	$69,899.46
49	10%	$0.00	$19,652.04	$216,172.45	$2,000.00	$7,189.95	$79,089.41
50	10%	$0.00	$21,617.25	$237,789.70	$2,000.00	$8,108.94	$89,198.35
51	10%	$0.00	$23,778.97	$261,568.67	$2,000.00	$9,119.83	$100,318.18
52	10%	$0.00	$26,156.87	$287,725.54	$2,000.00	$10,231.82	$112,550.00
53	10%	$0.00	$28,772.55	$316,498.09	$2,000.00	$11,455.00	$126,005.00
54	10%	$0.00	$31,649.81	$348,147.90	$2,000.00	$12,800.50	$140,805.50
55	10%	$0.00	$34,814.79	$382,962.69	$2,000.00	$14,280.55	$157,086.05
56	10%	$0.00	$38,296.27	$421,258.96	$2,000.00	$15,908.60	$174,994.65
57	10%	$0.00	$42,125.90	$463,384.85	$2,000.00	$17,699.47	$194,694.12
58	10%	$0.00	$46,338.49	$509,723.34	$2,000.00	$19,669.41	$216,363.53
59	10%	$0.00	$50,972.33	$560,695.67	$2,000.00	$21,836.35	$240,199.88
60	10%	$0.00	$56,069.57	$616,765.24	$2,000.00	$24,219.99	$266,419.87
61	10%	$0.00	$61,676.52	$678,441.76	$2,000.00	$26,841.99	$295,261.86
62	10%	$0.00	$67,844.18	$746,285.94	$2,000.00	$29,726.19	$326,988.05
63	10%	$0.00	$74,628.59	$820,914.53	$2,000.00	$32,898.80	$361,886.85
64	10%	$0.00	$82,091.45	$903,005.99	$2,000.00	$36,388.68	$400,275.53
65	10%	$0.00	$90,300.60	$993,306.59	$2,000.00	$40,227.55	$442,503.09