CHAPTER

4

Making the Minimum

Activity: Individual

20 MINUTES

Materials: Activity handout

Objective: The purpose of this activity is for students to see how making minimum payments on a credit card is very costly. Students will analyze the payment history of a person making minimum payments and calculate the additional cost in interest.

STANDARD **Credit and Debt Standard 1:** Identify the costs and benefits of various types of credit.

- Using a financial or online calculator, compare the total cost of reducing a $1,000 credit card balance to zero with minimum payments versus above-minimum payments

Note: This activity is an alternative to the "Hidden Cost of Credit" activity and does not require access to the internet.

Procedure

Hand out the student activity sheet and minimum payment schedule. Students will read the scenario and analyze data to answer the problems.

Answers:

1. $1,119.57
2. 154 months of payments ÷ 12 months = 12 years, 10 months
3. Month 90 ($3.68) to month 91 ($3.71)
4. Add interest paid for months 1–12 = $164.45 ÷ (minimum payments for months 1–12 = $259.65) = 63.33%
5. Month 111 $5.08 principal vs. $4.92 interest
6. Yes. $10.00 month 90–153 the payment stays at $10.00
7. Yes, monthly interest paid the first month ($14.41) ÷ original balance ($910) * 12 (to convert to annual rate) = 19%
8. Zach's expenses and time off from work over the holiday break were not surprises. If Zach had planned ahead, he could have estimated the amount of money needed for these expenses and saved a portion of his earnings for the upcoming expenses and time off from work.

NAME: _____ DATE: _____

Making the Minimum (1/2)

Directions

Zach, a college freshman, recently received his first credit card, which he signed up for during orientation. He promised himself that he would use it only for emergencies. It is now the middle of December and Zach has to stop working for a couple weeks in order to finish some semester projects, study for and take his finals, and then go home for the holiday break. Since he will not get a paycheck again until the next term in January, he had to use his credit card for the following "emergencies":

Gas for the drive back home	**$55**
Food (snacks for studying)	**$45**
Christmas gifts for family	**$225**
Books for next semester's classes	**$585**
	$910

Now, what will happen if Zach only makes the minimum payments on this one credit card? Assuming he charges nothing else and makes every minimum payment on time (two BIG assumptions), it will take him 155 months to pay for these "emergencies." Use the chart (Minimum Payment Schedule) on the following pages as you answer the questions below.

1. How much total interest will Zach pay?
2. How many years of payments will he have?
3. At what month does the monthly principal paid start to increase?
4. How much (percentage) of Zach's first year of payments is interest?
5. At what month does Zach's principal paid exceed the interest paid?
6. Does this credit card have a minimum monthly payment, regardless of the balance? How can you tell?
7. Can you figure out the interest rate of the card based on the information given for the first month? (Hint: APR is annual; the chart is computed monthly.)
8. How could Zach have avoided using a credit card even with the large expenses and time off from work?

Making the Minimum (2/2)

Minimum Payment Schedule

Month	Minimum Payment	Interest Pai	Principal Pa	Balance	Month	Minimum Payment	Interest Pai	Principal Pa	Balance	Month	Minimum Payment	Interest Pai	Principal Pa	Balance
1	$22.75	$14.41	$8.34	$901.66	31	$17.26	$10.93	$6.33	$684.00	61	$13.09	$8.29	$4.80	$518.88
2	$22.54	$14.28	$8.27	$893.39	32	$17.10	$10.83	$6.27	$677.73	62	$12.97	$8.22	$4.76	$514.13
3	$22.33	$14.15	$8.19	$885.20	33	$16.94	$10.73	$6.21	$671.52	63	$12.85	$8.14	$4.71	$509.41
4	$22.13	$14.02	$8.11	$877.09	34	$16.79	$10.63	$6.16	$665.36	64	$12.74	$8.07	$4.67	$504.74
5	$21.93	$13.89	$8.04	$869.05	35	$16.63	$10.53	$6.10	$659.26	65	$12.62	$7.99	$4.63	$500.12
6	$21.73	$13.76	$7.97	$861.08	36	$16.48	$10.44	$6.04	$653.22	66	$12.50	$7.92	$4.58	$495.53
7	$21.53	$13.63	$7.89	$853.19	37	$16.33	$10.34	$5.99	$647.23	67	$12.39	$7.85	$4.54	$490.99
8	$21.33	$13.51	$7.82	$845.37	38	$16.18	$10.25	$5.93	$641.30	68	$12.27	$7.77	$4.50	$486.49
9	$21.13	$13.38	$7.75	$837.62	39	$16.03	$10.15	$5.88	$635.42	69	$12.16	$7.70	$4.46	$482.03
10	$20.94	$13.26	$7.68	$829.94	40	$15.89	$10.06	$5.82	$629.59	70	$12.05	$7.63	$4.42	$477.61
11	$20.75	$13.14	$7.61	$822.33	41	$15.74	$9.97	$5.77	$623.82	71	$11.94	$7.56	$4.38	$473.23
12	$20.56	$13.02	$7.54	$814.79	42	$15.60	$9.88	$5.72	$618.10	72	$11.83	$7.49	$4.34	$468.89
13	$20.37	$12.90	$7.47	$807.32	43	$15.45	$9.79	$5.67	$612.44	73	$11.72	$7.42	$4.30	$464.60
14	$20.18	$12.78	$7.40	$799.92	44	$15.31	$9.70	$5.61	$606.82	74	$11.61	$7.36	$4.26	$460.34
15	$20.00	$12.67	$7.33	$792.59	45	$15.17	$9.61	$5.56	$601.26	75	$11.51	$7.29	$4.22	$456.12
16	$19.81	$12.55	$7.27	$785.32	46	$15.03	$9.52	$5.51	$595.75	76	$11.40	$7.22	$4.18	$451.94
17	$19.63	$12.43	$7.20	$778.12	47	$14.89	$9.43	$5.46	$590.29	77	$11.30	$7.16	$4.14	$447.79
18	$19.45	$12.32	$7.13	$770.99	48	$14.76	$9.35	$5.41	$584.88	78	$11.19	$7.09	$4.10	$443.69
19	$19.27	$12.21	$7.07	$763.92	49	$14.62	$9.26	$5.36	$579.51	79	$11.09	$7.02	$4.07	$439.62
20	$19.10	$12.10	$7.00	$756.92	50	$14.49	$9.18	$5.31	$574.20	80	$10.99	$6.96	$4.03	$435.59
21	$18.92	$11.98	$6.94	$749.98	51	$14.36	$9.09	$5.26	$568.94	81	$10.89	$6.90	$3.99	$431.60
22	$18.75	$11.87	$6.88	$743.11	52	$14.22	$9.01	$5.22	$563.72	82	$10.79	$6.83	$3.96	$427.64
23	$18.58	$11.77	$6.81	$736.30	53	$14.09	$8.93	$5.17	$558.55	83	$10.69	$6.77	$3.92	$423.72
24	$18.41	$11.66	$6.75	$729.55	54	$13.96	$8.84	$5.12	$553.43	84	$10.59	$6.71	$3.88	$419.84
25	$18.24	$11.55	$6.69	$722.86	55	$13.84	$8.76	$5.07	$548.36	85	$10.50	$6.65	$3.85	$415.99
26	$18.07	$11.45	$6.63	$716.23	56	$13.71	$8.68	$5.03	$543.33	86	$10.40	$6.59	$3.81	$412.17
27	$17.91	$11.34	$6.57	$709.67	57	$13.58	$8.60	$4.98	$538.35	87	$10.30	$6.53	$3.78	$408.40
28	$17.74	$11.24	$6.51	$703.16	58	$13.46	$8.52	$4.94	$533.42	88	$10.21	$6.47	$3.74	$404.65
29	$17.58	$11.13	$6.45	$696.71	59	$13.34	$8.45	$4.89	$528.53	89	$10.12	$6.41	$3.71	$400.94
30	$17.42	$11.03	$6.39	$690.33	60	$13.21	$8.37	$4.85	$523.68	90	$10.02	$6.35	$3.68	$397.27

Month	Minimum Payment	Interest Paid	Principal Paid	Balance	Month	Minimum Payment	Interest Paid	Principal Paid	Balance
91	$10.00	$6.29	$3.71	$393.56	123	$10.00	$3.87	$6.13	$238.08
92	$10.00	$6.23	$3.77	$389.79	124	$10.00	$3.77	$6.23	$231.85
93	$10.00	$6.17	$3.83	$385.96	125	$10.00	$3.67	$6.33	$225.52
94	$10.00	$6.11	$3.89	$382.07	126	$10.00	$3.57	$6.43	$219.09
95	$10.00	$6.05	$3.95	$378.12	127	$10.00	$3.47	$6.53	$212.56
96	$10.00	$5.99	$4.01	$374.11	128	$10.00	$3.37	$6.63	$205.93
97	$10.00	$5.92	$4.08	$370.03	129	$10.00	$3.26	$6.74	$199.19
98	$10.00	$5.86	$4.14	$365.89	130	$10.00	$3.15	$6.85	$192.34
99	$10.00	$5.79	$4.21	$361.68	131	$10.00	$3.05	$6.95	$185.39
100	$10.00	$5.73	$4.27	$357.41	132	$10.00	$2.94	$7.06	$178.32
101	$10.00	$5.66	$4.34	$353.07	133	$10.00	$2.82	$7.18	$171.15
102	$10.00	$5.59	$4.41	$348.66	134	$10.00	$2.71	$7.29	$163.86
103	$10.00	$5.52	$4.48	$344.18	135	$10.00	$2.59	$7.41	$156.45
104	$10.00	$5.45	$4.55	$339.63	136	$10.00	$2.48	$7.52	$148.93
105	$10.00	$5.38	$4.62	$335.00	137	$10.00	$2.36	$7.64	$141.29
106	$10.00	$5.30	$4.70	$330.31	138	$10.00	$2.24	$7.76	$133.52
107	$10.00	$5.23	$4.77	$325.54	139	$10.00	$2.11	$7.89	$125.64
108	$10.00	$5.15	$4.85	$320.69	140	$10.00	$1.99	$8.01	$117.63
109	$10.00	$5.08	$4.92	$315.77	141	$10.00	$1.86	$8.14	$109.49
110	$10.00	$5.00	$5.00	$310.77	142	$10.00	$1.73	$8.27	$101.22
111	$10.00	$4.92	$5.08	$305.69	143	$10.00	$1.60	$8.40	$92.83
112	$10.00	$4.84	$5.16	$300.53	144	$10.00	$1.47	$8.53	$84.29
113	$10.00	$4.76	$5.24	$295.29	145	$10.00	$1.33	$8.67	$75.63
114	$10.00	$4.68	$5.32	$289.96	146	$10.00	$1.20	$8.80	$66.83
115	$10.00	$4.59	$5.41	$284.55	147	$10.00	$1.06	$8.94	$57.89
116	$10.00	$4.51	$5.49	$279.06	148	$10.00	$0.92	$9.08	$48.80
117	$10.00	$4.42	$5.58	$273.48	149	$10.00	$0.77	$9.23	$39.57
118	$10.00	$4.33	$5.67	$267.81	150	$10.00	$0.63	$9.37	$30.20
119	$10.00	$4.24	$5.76	$262.05	151	$10.00	$0.48	$9.52	$20.68
120	$10.00	$4.15	$5.85	$256.20	152	$10.00	$0.33	$9.67	$11.01
121	$10.00	$4.06	$5.94	$250.25	153	$10.00	$0.17	$9.83	$1.18
122	$10.00	$3.96	$6.04	$244.22	154	$1.20	$0.02	$1.18	$0.00