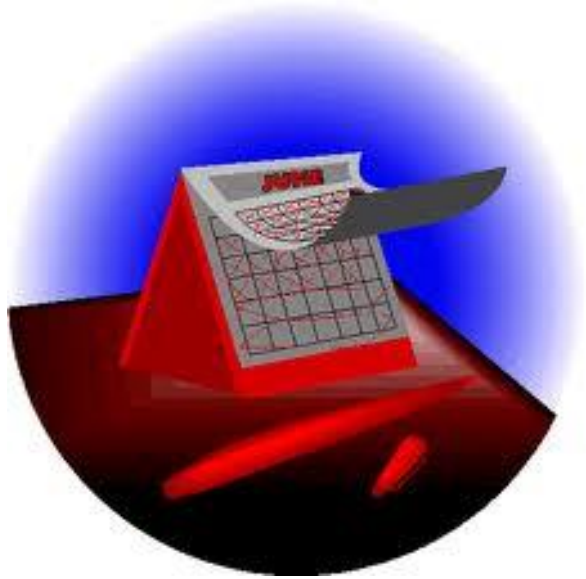


Average Daily Balance: When should you pay your bills?

§6.5



- Find the average daily balance, finance charge, and ending balance if 1.5% monthly interest rate:
 - 8/1-8/13 Balance at the end of the day = \$350
 - 8/14 \$90 Payment
 - 8/15-8/31 No Payment made

Warm-up

- Pauly always make his VISA payments when he receives his second bimonthly check. Does the timing of his payment influence the amount he pays in interest?
- What would his ending balance have been in Jan. if he paid on the first day or last day of the month instead of on the 24th?
- How much would he save by paying on the 1st or 31st?

Skill 1

Dates	Payment	Balance at end of Day	Number of days	Sum of daily balances
1/1	\$60.00	\$271.00	1	\$271.00
1/2-1/31	0.00	\$271.00	30	8130.00
			Total:31	\$8401.00

Average daily balance

$$B = 8401/31 = 271.00$$

Finance charge

$$0.014 * 271 = 3.79$$

Ending Balance for Jan

$$271 + 3.79 = 274.79$$

If he paid on 1/1

Dates	Payment	Balance at end of Day	Number of days	Sum of daily balances
1/1-1/30	0.00	\$331.00	30	\$9930.00
1/31	60.00	\$271.00	1	271.00
			Total:31	\$10201.00

Average daily balance

$$B = 10201/31 = 329.07$$

Finance charge

$$0.014 * 329.07 = 4.61$$

Ending Balance for Jan

$$271 + 4.61 = 275.61$$

If he paid on 1/31

- If he pays on 1/1 instead of 1/24 he saves
 - $\$275.42 - 274.79 = 0.63$
- If he pays on 1/24 instead of 1/31 he saves:
 - $275.61 - 275.42 = 0.19$
- If he pays on 1/1 instead of 1/31 he saves:
 - $275.61 - 274.79 = 0.82$

When should you make your payments?

- Additional charges throughout the month affect the average daily balance.

Skill 2

- Pauly VISA account has a monthly interest rate of 1.4%. He had the following daily balances and payments for the month of January:
 - From 1/1 to 1/12 his daily balance was \$331
 - 1/13 see below...
 - On 1/24 he made a payment of \$60
 - From 1/25-1/31 his balance remained \$271
- If Pauly purchases a new set of headphones for \$45.00 on 1/13, what is his daily average balance?

Skill 2



Dates	Payment	Purchase	Balances at End of day	# of Days	Sum of daily balances
1/1-1/12	0.00	0.00	\$331.00	12	\$3972.00
1/13	0.00	\$45.00	376.00	1	376.00
1/14-1/23	0.00	0.00	376.00	10	3760.00
1/24	\$60.00	0.00	316.00	1	316.00
1/25-1/31	0.00	0.00	316.00	7	2212.00
				31	\$10,636.00

Skill 2

- Average Daily Balance
 - = $10636/31 = 343.10$
- Finance Charge
 - = $343.10 * .014 = 4.80$
- Ending Balance for Jan
 - = $316.00 + 4.80 = 320.80$

Skill 2

- What if he purchases his headphones on 1/30 instead?

Skill 2

Dates	Payment	Purchase	Balances at End of day	# of Days	Sum of daily balances
1/1-1/23	0.00	0.00	\$331.00	23	\$7613.00
1/24	60.00	0.00	271.00	1	271.00
1/25-1/29	0.00	0.00	271.00	5	1355.00
1/30	0.00	45.00	316.00	1	316.00
1/31	0.00	0.00	316.00	1	316.00
				31	\$9871.00

Skill 2

- Average daily Balance:
 - $9871/31 = 318.42$
- Finance Charge
 - $= 318.42 * .014 = 4.46$
- Ending Balance for Jan
 - $316 + 4.46 = 320.46$
- Amount Saved by buying the headphones at the end of the month:
 - $320.80 - 320.46 = .34$

Skill 2

- According to this example when should you make purchases?

- VISA balance of \$3000.00. Monthly interest rate is 1.5%
 - 8/1-8/11 you do not make a payment.
 - 8/12 you make a payment of \$1900.00
 - 8/13-8/25 you do not make a payment
 - 8/26 you buy a new shuffle i-pod for \$80
 - 8/27-8/31 you do not make a payment
- 1. What is the average daily balance?
- 2. Compute the finance charge.
- 3. Find the ending balance for August.

August



Dates	Payment	Purchase	Balance at end of day	# of days	Sum of Daily Balances
8/1-8/11	0.00	0.00	\$3,000.00	11	\$33,000.00
8/12	\$1,900.00	0.00	1,100.00	1	1,100.00
8/13-8/25	0.00	0.00	1,100.00	13	14,300.00
8/26	0.00	\$80.00	1,180.00	1	1,180.00
8/27-8/31	0.00	0.00	1,180.00	5	5,900.00
				31	\$55,480.00

August

- Average daily balance
 - = $55480/31 = 1789.68$
- Finance Charge
 - = $1789.68 * .015 = 26.85$
- Ending Balance For August
 - = $1180 + 26.8 = 1206.85$

August

**PAY
MEWH
ATYOU
OWEME**



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Assignment