Explanation and example of the Rule of 78 for Instalment Loans

Explanation

- The "Rule of 78" is the method most banks and financial companies use to break down
 the principal and interest in the monthly repayment of an instalment loan. Under this rule,
 the proportion of interest in the monthly payments decreases over the course of the loan
 period.
- For example, if a loan is to be repaid over 12 months, the total interest will be divided into 78 portions (12 + 11 + 10 + ... + 1 = 78). 12/78ths of the interest is allocated as the first month's portion of the total interest, 11/78ths of the interest is allocated as the second month's portion and so on until the twelfth month, at which time 1/78th of the interest is allocated as that month's portion of the total interest.

The total interest portions for different loan tenors are illustrated as below:

| Loan Tenor (Months) | Interest Portion | |
|---------------------|-----------------------------------|--|
| 12 | 78 (12 + 11 + 10 + + 1) | |
| 24 | 300 (24 + 23 + 22 + + 1) | |
| 36 | 666 (36 + 35 + 34 + + 1) | |
| 48 | 1,176 (48 + 47 + 46 + + 1) | |
| 60 | 1,830 (60 + 59 + 58 + + 1) | |

Example

- To take another example, a customer borrows HK\$20,000 for a tenor of 24 months, and an arrangement fee of 1% p.a. is added to the principal. Thus, the total loan principal is HK\$20,400.
- Based on an interest rate of 0.255% per month flat, the total interest will be:

Total Interest = Loan principal x monthly flat rate x tenor (months)

= HK\$20,400 x 0.255% x 24

= HK\$1,248.48*

- According to "Rule of 78", the denominator of the loan with a 24-month tenor is the sum of the numbers 1 to 24 added together, which is 300 (24 + 23 + 22 + + 1 = 300). Hence, 24/300ths of the total interest is allocated as the portion to be paid in the 1st month.
- Interest in each instalment = Total interest x interest portion

- Interest of the 1st instalment = HK\$1,248.48 x 24 / 300 = HK\$99.88*

- Interest of the 2nd instalment = HK\$1,248.48 x 23 / 300 = HK\$95.72*

Interest of the 3^{rd} instalment = HK\$1.248.48 x 22 / 300 = HK\$91.56*

Interest of the last instalment = HK\$1.248.48 x 1 / 300 = HK\$4.16*

^{*} rounded to 2 decimal places

• Detailed breakdown of the principal and interest in each monthly repayment

Tenor (months): 24
Interest Rate (per month flat): 0.255%
Total Loan Amount (HK\$): 20,400

Monthly Repayment Amount (HK\$): 902.10

| Instalment | Payment Amount | Principal (HK\$) | Interest (HK\$) |
|------------|----------------|------------------|-----------------|
| No. | (HK\$) | , , , , | ` '' |
| 1 | 902.10 | 802.22 | 99.88 |
| 2 | 902.10 | 806.38 | 95.72 |
| 3 | 902.10 | 810.54 | 91.56 |
| 4 | 902.10 | 814.71 | 87.39 |
| 5 | 902.10 | 818.87 | 83.23 |
| 6 | 902.10 | 823.03 | 79.07 |
| 7 | 902.10 | 827.19 | 74.91 |
| 8 | 902.10 | 831.35 | 70.75 |
| 9 | 902.10 | 835.51 | 66.59 |
| 10 | 902.10 | 839.68 | 62.42 |
| 11 | 902.10 | 843.84 | 58.26 |
| 12 | 902.10 | 848.00 | 54.10 |
| 13 | 902.10 | 852.16 | 49.94 |
| 14 | 902.10 | 856.32 | 45.78 |
| 15 | 902.10 | 860.48 | 41.62 |
| 16 | 902.10 | 864.65 | 37.45 |
| 17 | 902.10 | 868.81 | 33.29 |
| 18 | 902.10 | 872.97 | 29.13 |
| 19 | 902.10 | 877.13 | 24.97 |
| 20 | 902.10 | 881.29 | 20.81 |
| 21 | 902.10 | 885.45 | 16.65 |
| 22 | 902.10 | 889.62 | 12.48 |
| 23 | 902.10 | 893.78 | 8.32 |
| 24 | 900.18 | 896.02 | 4.16 |
| Total | 21,648.48 | 20,400.00 | 1,248.48 |

The above example is for reference only and the amounts are rounded to 2 decimal places.

For enquiries, please call our Consumer Finance Services Hotline on 2211 1211.