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INTEREST RATE CALCULATOR

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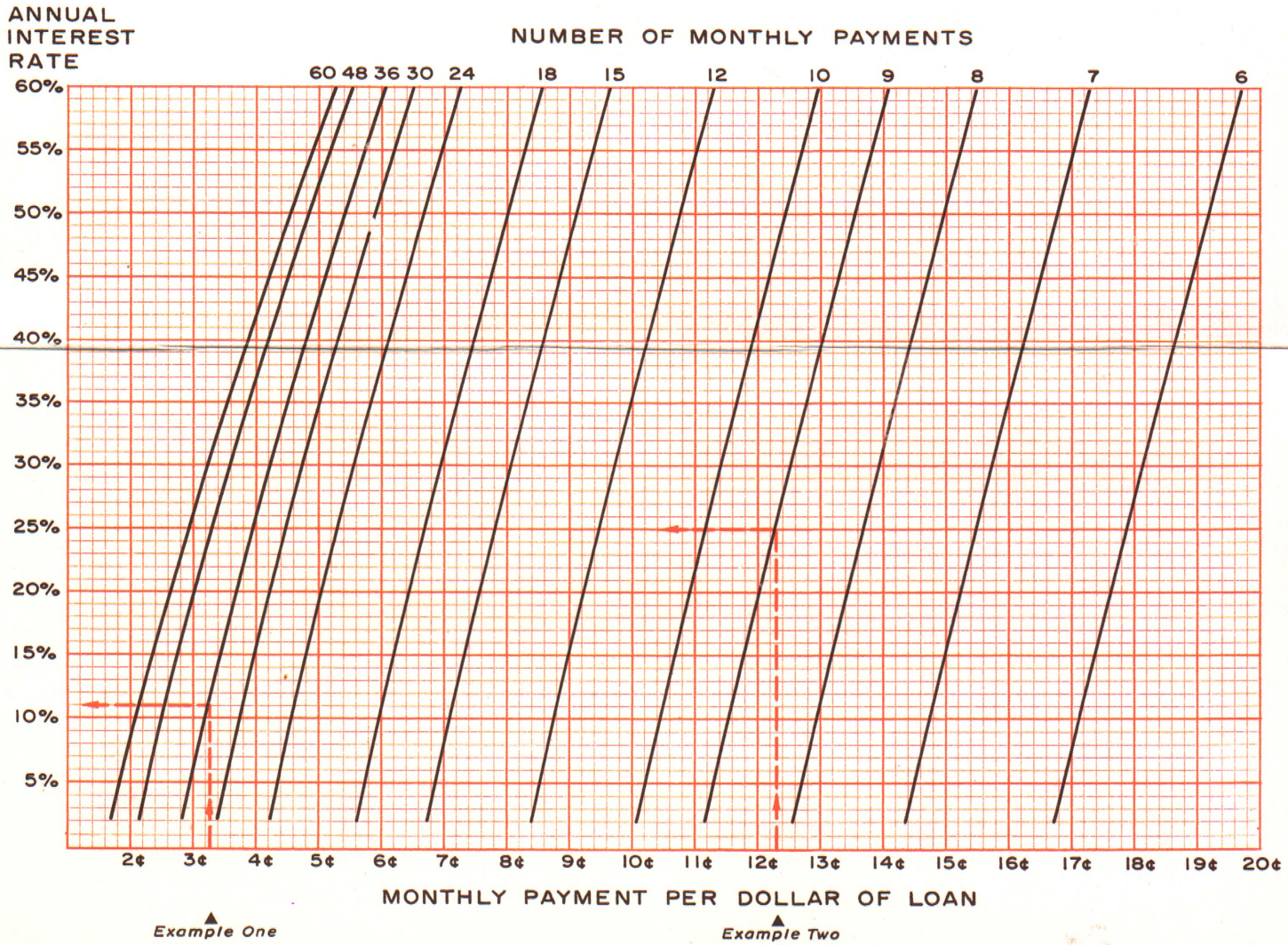
You should know how to figure interest rates on installment loans so you can compare financing costs before you buy on credit. Sometimes the finance charges on loans are not clearly stated or they may seem difficult to figure. However, using this Calculator and a few facts about the loan, you can easily figure interest rates for equal-payment loans. The simple three-step procedure for using the Calculator (below) is explained on the reverse side with typical examples showing its application to actual problems.



How to use the INTEREST RATE CALCULATOR

To figure interest rates for equal monthly payments, you need the following information:

Principal (amount borrowed in the case of a loan) or the balance (difference between cash price and down payment in the case of an installment purchase).

Number of monthly payments required to pay off the principal or balance.

Amount of the monthly payment.

MONTHLY PAYMENT LOANS

EXAMPLE ONE: You want to buy a car or tractor for $3,300. You can pay $1,000 down. The balance of $2,300 is payable at $75.39 per month for 36 months. What interest will you pay if you buy on time?

Solution:
Balance = $3,300 — $1,000 = $2,300
Number of months = 36
Monthly payment = $75.39

To compute the interest rate, using the Calculator chart, follow these 3 simple steps:

▶ STEP 1 Compute the monthly payment per dollar of balance. For Example One, this is:

$$\frac{\$75.39}{\$2300} = \$0.0328 = 3.28¢$$

▶ STEP 2 Mark the answer from step 1 on the base line of the chart (3.28¢ for Example One) and draw a straight line upward to the monthly payment line—36 in this case (see arrows on chart).

▶ STEP 3 Draw a line leftward to the interest rate line. For this example, the interest rate is about 11%.

WEEKLY OR BI-WEEKLY PAYMENT

Since the calculator is set up to use monthly payment figures, weekly or bi-weekly payment amounts are converted to monthly figures:

For weekly payments, multiply payment by 4.33

For bi-weekly payments (every 2 weeks) multiply payment by 2.17. This procedure, however, gives an interest rate which is likely to be in error by 1 or 2 percentage points.

EXAMPLE TWO: A television set sells for $240 cash or for $20 down and $6.25 per week for 39 weeks. What rate of interest is being charged on this credit plan?

Solution:
Balance = $240 — $20 = $220
Number of months over which payments are made = 9
(39 weeks ÷ 4⅓ weeks per month = 9 months)
Weekly payment = $6.25
Payment per month is $6.25 × 4.33 = $27.06

Use the 3 steps as before:

▶ STEP 1 Compute the "monthly" payment per dollar of loan. Using the figures from Example Two:

$$\frac{\$27.06}{220} = \$0.123 = 12.3¢$$

▶ STEP 2 Mark the answer from step 1 on the base line of the chart and draw a straight line upward to the "monthly" payment line — (9 for example two).

▶ STEP 3 Draw a line leftward to the interest rate line. Thus for this example, the interest rate is at least 26%.

OTHER TYPES OF LOANS

For revolving charge accounts:

Annual interest rate = 12 × monthly interest rate
Example:

$$12 \times 1.5\% = 18\%$$

For loan repaid in a lump sum:

$$\text{Annual interest rate} = \frac{\text{Interest charge}}{\text{Principal} \times \text{number of years}}$$

Example: A $600 loan is to be repaid at the end of 6 months (½ year) with $18 interest. Total to be repaid is $618.

Solution:

$$\frac{\$18}{\$600 \times ½} = 0.06 \text{ or } 6\%$$

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