Edgenuity

Warm-Up | The Cost of Credit

Lesson Question

Lesson Goals

Identify various types of credit.

Analyze how _____ rate and loan length affect the cost of credit.

Calculate the total cost of _____ a loan.

Words to Know

Fill in this table as you work through the lesson. You may also use the glossary to help you.

annual percentage rate (APR)	the annual interest rate that is charged for _____ money from an institution
closed-end credit	credit that is to be _____ in full by a specific date
collateral	an item with economic value that is pledged to an institution as _____ for a loan repayment
easy-access credit	short term _____ not based on credit history that typically have higher interest rates

Warm-Up | The Cost of Credit

Words to Know

grace period	the extra amount of time given to make a credit payment without ☐
open-end credit	an agreement by a bank to loan a certain amount of money, which can be borrowed again once the ☐ amount is repaid (also called revolving credit)
principal	the amount of money borrowed with closed-end credit that ☐ accrued interest

Review of Credit and Lending

Maggie borrowed $100 from her parents to buy a dress. She agreed to pay back the money plus 5%.

- How much interest will Maggie pay?

$$100(\square) = \$\square$$

- What is the total amount she will pay back?

$$\square + 5 = 105$$

So with interest, Maggie has to pay back $☐ to repay the loan.

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Slide 2

Types of Credit

Credit is an _____ between a lender and a borrower to repay a certain amount of money with specific repayment conditions, such as time and _____ rates.

Three main categories of credit are:

- **Open-end credit**

  Example: credit card
  Also called revolving credit because you're allowed to borrow money, repay it back, and as you repay you can continue to borrow that money from that same credit amount.

- **Closed-end credit**

  Example: car loan
  You're given an amount of money and a _____ time to pay the entire amount back.

- **Easy-access credit**

  A payday loan is paid back with your next paycheck.

  Example: payday loan
  The time frame to pay back is very, very short and the interest rates can be very, very _____.

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Slide 2

Open-End Credit

EXAMPLE

Open-end credit is an agreement with an institution that a certain amount of money can be _____ borrowed. Open-end credit is also called revolving credit.

Examples:

- _____ cards
- A line of credit at a bank for business owners

Characteristics:

- Can include **grace periods**
- Can have an annual _____
- Interest rate based on credit _____
- Late fees and interest after grace period
- Credit card _____ programs

Slide 4

Closed-End Credit

EXAMPLE

Closed-end credit is a loan that must be repaid in _____ by a specific date. The loan has a specified _____ rate for the term of the loan.

Examples:

- Car loan
- _____ loan

Characteristics:

- Usually for _____ purchases
- Interest rate based on credit history

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Slide 4

Easy-Access Credit

EXAMPLE

Easy-access credit is a loan given for a [ ] period of time that is not dependent on credit history.

Examples:

- Payday loan
- [ ] loan

A title loan may use a car title for collateral.

Characteristics:

- Higher interest rates
- **Collateral** required
- Large fees if not [ ] on time
- Usually for [ ] situations

Slide 7

Choosing and Repaying Open-End Credit

STRATEGY

Choosing

- No [ ] fee
- Lowest [ ] rate
- [ ] periods
- Rewards program

Repaying

- The **APR (annual percentage rate)** is the annual interest rate charged for borrowing money from an institution.
  - [ ] balances during each billing cycle
  - Divide by [ ] to calculate % in each billing cycle
- Pay full balance each month, if possible
  - [ ] balance payments

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Slide 9

Credit Card Statements

EXAMPLE

Linda has a credit card with a spending limit of $1000 and an APR of 13.5%. During the first month, Linda charged $500 and was able to pay $300 of that within her first billing cycle.

What is the amount of interest she will be charged after the first month?

Percent earned each month:

$13.5\% \div \square = 1.125\%$

Balance from the first month:

$500 - \square = 200$

Interest charged:

$200(0.01125) = \square$

The amount of interest she will be charged after the first month is $2.25.

What is Linda's new balance going into the second month?

$\square + 2.25 = 202.25$

Linda's new balance going into the second month is $\$ \square$.

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Slide 9

Credit Card Cost

Linda organized her credit card balances and payments over six months in a table.

Determine the interest Linda paid after the second month.

Balance: $202.25 - 50 =$ ☐

Interest: 0.01125

$152.25(0.01125) =$ ☐

The interest Linda paid after the second month is $1.71.

Fill in the missing values in the table.

Month	Balance	Payment	Interest Rate	Interest Charged
1	$500	$300.00	0.01125	$2.25
2	$202.25	$50.00	0.01125	
3	$154.15	$50.00	0.01125	$1.17
4	$105.32	$50.00	0.01125	$0.62
5	$55.94	$50.00	0.01125	$0.07
6	$6.01	$6.01		

Total interest charged

What was the total cost for the initial purchase?

$500 + 5.82 =$ ☐

The total cost for the initial purchase is $505.82.

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Slide 11

Choosing and Repaying Closed-End Credit

STRATEGY

Choosing

- Lowest interest rate
  - Fixed rate
  - Variable rate
- Amount of [ ] payment required
- [ ] fees

Repaying

- When you take out a closed-end loan, your payment will be part **principal** and part [ ] interest.
- To calculate the monthly payment for your loan, consider
  - the amount [ ],
  - the interest rate, and
  - the term of the loan.

Slide 11

Monthly and Total Repayment Costs

PROCEDURE

Tanya took out a loan of $4,500 to buy a new car. The loan has a 9% interest rate and must be paid back over 5 years. What is Tanya's monthly payment?

1. Calculate the interest rate per period.

$$\frac{0.09}{12} = \square$$

2. Add 1 to the interest rate per period.

$\square$

3. Raise the number calculated in step 2 to the negative power of the number of loan payments to be made, and then subtract this number from 1.

$$1.0075^{-(12)(5)} = 1.0075^{-60} = \square$$

$$1 - 0.6387 = 0.3613$$

5 years = 60 months

4. Divide the interest rate per period by the number calculated in step 3.

$$\frac{0.0075}{0.3613} \approx \square$$

5. Multiply the quotient from step 4 by the principal.

$$(\$4{,}500)(0.0208) = \$93.60$$

The monthly payment will be $\square$.

After paying off the loan, Tanya will have paid about $5,616, which we found by multiplying $93.60 by the 60 monthly payments.

Summary | The Cost of Credit

Lesson Question

What are the costs and benefits of credit, such as loans and credit cards?

Answer

Use this space to write any questions or thoughts about this lesson.