

Borrowing Price Tag

Use an online calculator to compare what loans really cost.

GRADE 8 • TEKS 8.12.B

8.12.B "calculate the total cost of repaying a loan, including credit cards and easy access loans, under various rates of interest and over different periods using an online calculator;"

NAME _____

DATE _____

CALCULATOR CHECK

Use an online simple-interest loan calculator. Enter the amount borrowed, annual interest rate, and loan length. If the calculator asks for years, divide the number of months by 12; total repaid equals the amount borrowed plus the interest shown. This worksheet models credit cards and easy-access loans with simple interest and no fees.

WORKED EXAMPLE

Use an online simple-interest calculator. Find the total repaid for a \$750 loan at 8% annual interest for 3 years.

1. Enter \$750 for the amount borrowed, 8% for the annual rate, and 3 years for the time.
2. Interest = $750 \times 0.08 \times 3 = 180$.
3. Total repaid = $750 + 180 = 930$.

Answer: \$930

PRACTICE 6 problems

- 1** Use an online simple-interest calculator. Find the total repaid for a \$400 loan at 5% annual interest for 2 years.

ANSWER _____

- 2** Use an online simple-interest calculator. Find the total repaid for a \$1,200 loan at 7% annual interest for 18 months.

ANSWER _____

- 3** Use an online simple-interest calculator. Find the total repaid for a \$850 loan at 12% annual interest for 6 months.

ANSWER _____

- 4** A credit card balance is \$300. For this model, use simple interest at 18% per year for 1 year. Use an online calculator to find the total repaid.

ANSWER _____

- 5** An easy-access loan is \$500 at 24% annual simple interest for 9 months. Use an online calculator to find the total repaid.

ANSWER _____

- 6** Use an online simple-interest calculator. Find the total repaid for a \$1,600 loan at 4.5% annual interest for 4 years.

ANSWER _____

APPLY IT Show your work

- 1** Sam uses a credit card to buy a \$480 game system. For this model, assume no new charges, payments, or fees, and use simple interest of 20% per year for 15 months. Use an online calculator to find the total amount Sam repays.

WORK SPACE

ANSWER _____

- 2** Mia's bike needs a \$250 repair. She considers an easy-access loan with 30% annual simple interest for 4 months. Use an online calculator to find the total amount she would repay.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Two lenders offer a \$600 loan. Offer A charges 9% annual simple interest for 3 years. Offer B charges 14% annual simple interest for 18 months. Use an online calculator for both offers. Which offer has the lower total repaid, and how much less does it cost?

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Use an online simple-interest calculator. Find the total repaid for a \$400 loan at 5% annual interest for 2 years.	\$440
2	Use an online simple-interest calculator. Find the total repaid for a \$1,200 loan at 7% annual interest for 18 months.	\$1,326
3	Use an online simple-interest calculator. Find the total repaid for a \$850 loan at 12% annual interest for 6 months.	\$901
4	A credit card balance is \$300. For this model, use simple interest at 18% per year for 1 year. Use an online calculator to find the total repaid.	\$354
5	An easy-access loan is \$500 at 24% annual simple interest for 9 months. Use an online calculator to find the total repaid.	\$590
6	Use an online simple-interest calculator. Find the total repaid for a \$1,600 loan at 4.5% annual interest for 4 years.	\$1,888

PART 2 • APPLY IT

1. **\$600** Convert 15 months to 1.25 years. The interest is \$120, so the total repaid is $\$480 + \$120 = \$600$.
2. **\$275** Convert 4 months to $\frac{1}{3}$ year. The interest is \$25, so the total repaid is $\$250 + \$25 = \$275$.

CHALLENGE

Offer B has the lower total repaid. Offer A totals \$762, Offer B totals \$726, so Offer B costs \$36 less.

Accept dollar amounts with or without cents, such as \$440 or \$440.00. Accept equivalent time conversions, including 18 months = 1.5 years, 15 months = 1.25 years, and 4 months = $\frac{1}{3}$ year.