Handout 02.11: Interest Math Practice

Name: ___________________ Date: ________ Partner: ___________________

Rates on this sheet are typical for 2026 and marked. The people are made up.

My do now guess: a $500 phone at $25 a month on a store card will cost $________ in total.

Part A: Debit vs credit, side by side

	Debit card	Credit card
Whose money is it?		
When does it leave?		
Is there a bill?		
Is there interest?		
What if the card is stolen?		
Does it build a credit score?		

Credit is ____

Debt is ____

Interest is ____

Part B: Simple interest on $500

The formula: I = P x r x t (interest = amount borrowed x rate as a decimal x years)

Rates as decimals: 5 percent = 0.05. 15 percent = 0.15. 24 percent = 0.24.

Worked example: $500 at 5 percent for 1 year. $500 x 0.05 x 1 = $25. Total owed: $500 + $25 = $525.

Rate	What it is like	One year: interest	One year: total owed	Three years: interest	Three years: total owed
5 percent	a good car loan	$500 x 0.05 x 1 = $_____	$_____	$500 x 0.05 x 3 = $_____	$_____
15 percent	a credit union card	$500 x 0.15 x 1 = $_____	$_____	$500 x 0.15 x 3 = $_____	$_____
24 percent	a typical bank credit card	$500 x 0.24 x 1 = $_____	$_____	$500 x 0.24 x 3 = $_____	$_____

At which rate does three years of interest cost more than half the phone? ___________

(Grade 6: one-year columns only.)

Part C: Two more loans

1. Ines borrows $1,200 on a store card at 15 percent and pays nothing for two years. Interest: $_____ x _____ x _____ = $_____. Total owed: $_____.

2. A used car loan: $8,000 at 5 percent for four years. Interest: $_____ x _____ x _____ = $_____. Total paid: $_____.

3. Which loan cost more in dollars? _____ Which cost more as a percent of what was borrowed? _____ How can both be true?

Part D: The minimum payment trap

Leo puts a $500 phone on a credit card at 24 percent APR. That is 2 percent a month. Each month the card adds 2 percent of the balance, then his payment comes off.

The first three months at $25 a month (follow along on the board):

Month	Balance at start	Add 2 percent	Pay $25	Balance at end
1	$500.00	$10.00	$25.00	$485.00
2	$485.00	$9.70	$25.00	$469.70
3	$469.70	$9.39	$25.00	$454.09

Three months in, Leo has paid $75 and still owes $454.09. Copy the finished results from the slide:

Plan	Months to pay off	Total interest	Total paid for the $500 phone
$25 a month (the minimum)			
$50 a month			
Paid in full the first month			

My recommendation (two sentences, with the numbers):

My do now guess was $_____. The real number was $_____. I was off by $_____.

Part E: The credit score, in one paragraph

A credit score is a number from _____ to _____ that shows ___________________________.

It goes up when I ______________________________ and ______________________________.

It goes down when I ______________________________ or ______________________________.

It matters because _________________________, _________________________, and sometimes _________________________ look at it.

Grade 8 stretch

1. Do months 4 and 5 of the $25 plan by hand and check them against the pattern.
2. What monthly payment would clear the $500 in ten months? (Try $55, then $56.) About how much interest is that?
3. Three cards: a bank card at 24 percent, a store card at 29 percent, a credit union card at 15 percent. A person with a good score should pick ____________ because _________________________.

Exit card (3-2-1)

3 differences between credit and debit: ______________, ______________, ______________

2 things that move a credit score: ______________, ______________

1 number: the total cost of the $500 phone at $25 a month: $_______