Finding the Rate

How loan supply and demand set an interest rate

GE.6.7 "Demonstrate how supply and demand determine equilibrium price and quantity in the financial markets."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Circle the interest rate and both loan amounts in the table row where supply equals demand. Underline the sentence that explains what happens when lenders offer more loans than borrowers want.

Loans for Local Businesses

1. A town's credit unions connect households that save money with small businesses that need loans. Think of these loans as one market for loanable funds. The interest rate is the price borrowers pay to use money for a year. The quantity is the total amount lent, measured here in millions of dollars per year.

2. The table shows how much lenders would supply and businesses would demand at several yearly interest rates. At lower rates, borrowing costs less, so businesses demand more loans; lenders supply less because returns are smaller. At higher rates, businesses demand less and lenders supply more. Only one listed rate makes the amounts equal.

ONE-YEAR SMALL-BUSINESS LOAN MARKET, AMOUNTS IN MILLIONS OF DOLLARS

Interest rate	Loans supplied	Loans demanded
3%	$20 million	$60 million
4%	$30 million	$50 million
5%	$40 million	$40 million
6%	$50 million	$30 million
7%	$60 million	$20 million

3. When borrowers want more money than lenders offer, a shortage puts upward pressure on the interest rate. When lenders offer more than borrowers want, a surplus puts downward pressure on the rate. The rate where supply and demand match is the equilibrium price; the amount lent there is the equilibrium quantity. Changes in saving or borrowing can shift these amounts.

2 ANSWER WITH EVIDENCE

Use the passage

1. What are the equilibrium interest rate and loan amount? How does the table show this?

2. At 4%, is there a shortage or a surplus of loans? How large is it, and which way would the interest rate move?

3. At 6%, is there a shortage or a surplus of loans? How large is it, and which way would the interest rate move?

4. Suppose businesses demand $20 million more in loans at every listed interest rate. What are the new equilibrium interest rate and loan amount?

3 YOUR TURN

Your own words

Invent a believable reason households would save more at the credit unions. Assume their added savings increase loan supply by $20 million at every listed interest rate. In three sentences, state the new equilibrium interest rate and loan amount, then explain why the rate moves from its original level.

Finding the Rate

PART 1 · READ AND MARK

Circle the interest rate and both loan amounts in the table row where supply equals demand. Underline the sentence that explains what happens when lenders offer more loans than borrowers want. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What are the equilibrium interest rate and loan amount? How does the table show this?	**The equilibrium is 5% and $40 million in loans per year. At 5%, the amounts supplied and demanded are equal.**
2	At 4%, is there a shortage or a surplus of loans? How large is it, and which way would the interest rate move?	**There is a $20 million shortage because demand is $50 million and supply is $30 million. The interest rate would rise.**
3	At 6%, is there a shortage or a surplus of loans? How large is it, and which way would the interest rate move?	**There is a $20 million surplus because supply is $50 million and demand is $30 million. The interest rate would fall.**
4	Suppose businesses demand $20 million more in loans at every listed interest rate. What are the new equilibrium interest rate and loan amount?	**The new equilibrium is 6% and $50 million. At 6%, the new amount demanded is $50 million, matching the amount supplied.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

After a local factory pays bonuses, many households save part of that money at the credit unions. With $20 million added to supply at every rate, the new equilibrium is 4% and $50 million in loans per year. At the old 5% rate, lenders offer $60 million but borrowers want only $40 million, so the surplus pushes the rate down.

Accept any plausible reason for increased household saving. The explanation should identify 4% and $50 million as the new equilibrium and connect the falling rate to a surplus at the original 5% rate.