

LESSON
1-1 **Challenge**
Comparing Phone Plans

A cell phone company is offering two different monthly plans. Each plan charges a monthly fee and then an additional cost per minute.

Plan A	\$40 fee	45 cents per minute
Plan B	\$70 fee	35 cents per minute

The mathematical expression for Plan A which represents the charges for the monthly fee plus the charge per minute m for one month is:

$$40 + 0.45(m)$$

- Write the expression which represents the charges for the monthly fee plus the charge per minute m for Plan B for one month.

Use the expressions above to complete the chart.

Number of Minutes	Expression for Plan A	Cost of Plan A	Expression for Plan B	Cost for Plan B
100	$40 + 0.45(100)$	\$85		
200				
300				
400				
500				

- Which plan is less expensive for 200 minutes or less each month?
- Which plan is less expensive for 400 minutes or more each month?
- Suppose a friend asks you which of the two plans is less expensive. How would you respond?

