Name: _____

Compare Functions

Solve the problems.

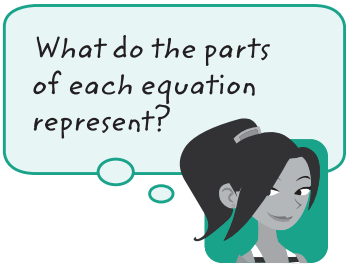
1 A hardware store charges a $30 rental fee and $15 per day to rent a power washer. Which equation correctly relates the total cost y to rent the washer for x days?

A $y = 15 + 30x$

B $y = 30 + 15x$

C $y = 30 - \frac{x}{15}$

D $y = 15 - \frac{x}{30}$



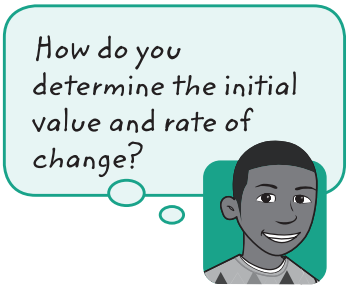
2 Tony drives 18 miles to pick up his friend at his house. Then he drives at a constant speed of 40 miles per hour to a state park to go hiking. Let y represent the number of miles that Tony drives after x hours. Which of the following statements are true? Select all that apply.

A The relationship can be represented by the equation $y = 40x + 18$.

B If Tony travels for 1.5 hours, he will have driven a total of 60 miles.

C The initial value is 18 miles.

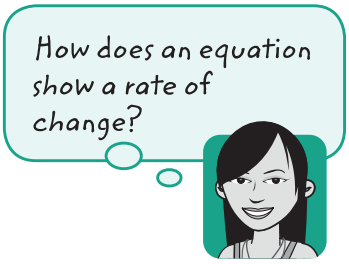
D The rate of change is negative.



3 Alma borrows money from her mom to buy a $150 bike. She gives her mom $40 at the time of purchase and continues to pay her $10 each month until the bike is paid for in full. Alma wrote this equation to represent the amount y that she will have paid her mom after x months.

Equation: $y = 40x + 10$

Is her equation correct? How did she get that equation? If it is not correct, write a correct equation.



_____

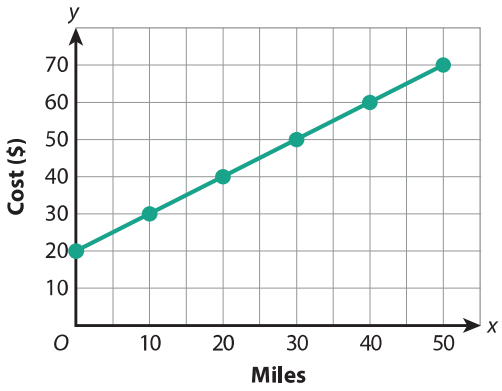
_____

Solve.

4 The rates for two airport shuttles are shown below.

Quick Shuttle
Rates for shuttle
- $30 for passenger pickup
- $0.50 for each mile driven

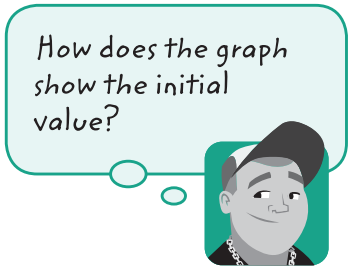
We-Drive Shuttle



Part A

Which shuttle service has a greater initial value? Which service has the greater rate of change? Explain what the greater initial value and greater rate of change mean.

Show your work.



Solution: _____

_____

_____

Part B

Which shuttle company would cost less for a 25-mile trip?

Show your work.

Solution: _____