RSCS   Name:_____

Class:_____   Date:_____

HOMEWORK

Solve each system of equations by substitution. Clearly identify your solution.

1. $\begin{cases} y = 3x + 19 \\ y = 5x + 33 \end{cases}$

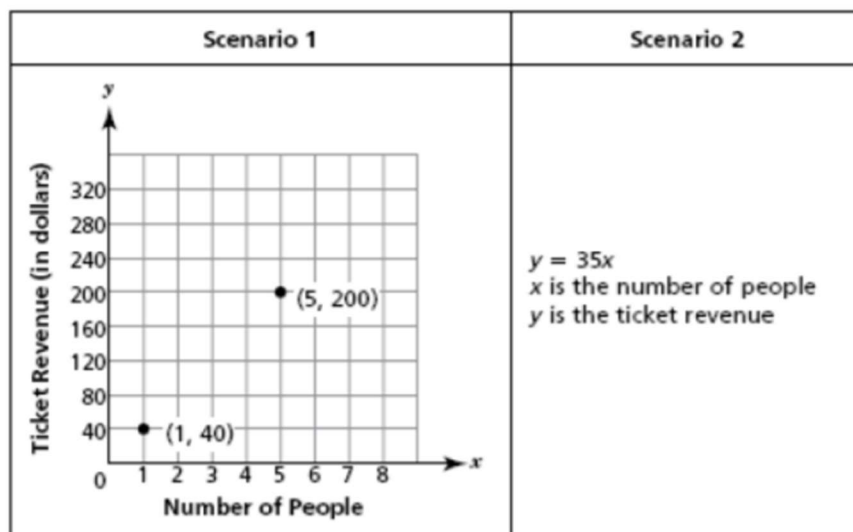**2.** $\begin{cases} y = -2x + 2 \\ y = 7x + 11 \end{cases}$

3. $\begin{cases} y = x + 8 \\ x + y = 2 \end{cases}$

4. $\begin{cases} y = 2x \\ 5x - y = 9 \end{cases}$

5. $\begin{cases} y = x + 2 \\ 3x + 3y = 6 \end{cases}$

6. $\begin{cases} x = 3y \\ 2x + 4y = 10 \end{cases}$

Consider the two scenarios below.

Scenario 1	Scenario 2
	$y = 35x$ x is the number of people y is the ticket revenue

Scenario 1 graph: Ticket Revenue (in dollars) on y-axis (40, 80, 120, 160, 200, 240, 280, 320), Number of People on x-axis (1 2 3 4 5 6 7 8). Points: (1, 40) and (5, 200).

Part A

What is the unit rate of ticket revenue per person for scenario 1? Fill in the blank to complete the statement.

Answer The unit rate for scenario 1 is $ _____ per person.

Part B

What is the unit rate of ticket revenue per person for scenario 2? Fill in the blank to complete the statement.

Answer The unit rate for scenario 2 is $ _____ per person.

Part C

In which scenario does the ticket revenue increase faster, and by how much? Fill in the blanks to complete the statement.

Answer The ticket revenue increases faster in scenario _____ by $_____ per person.