

Name: _____

Date: _____

Barack Obama and Michelle Obama were given the equation below and were told to solve for x.

(a) Determine who solved the problem correctly.

Provide evidence to defend your answers in the lines below.

$$\frac{x}{-4} - 5 = -8$$

Barack's solution:

$$\begin{aligned} \frac{x}{-4} - 5 &= -8 \\ -4 \cdot \frac{x}{-4} - 5 &= -8 \cdot -4 \\ x + 5 &= 32 \\ +5 \quad +5 & \\ \boxed{x = 37} & \end{aligned}$$

Michelle's solution:

$$\begin{aligned} \frac{x}{-4} - 5 &= -8 \\ \frac{x}{-4} + 5 &= -8 + 5 \\ -4 \cdot \frac{x}{-4} &= -3 \cdot -4 \\ \boxed{x = 12} & \end{aligned}$$

_____ is correct because _____

I know this is true because _____

_____ made a mistake when _____