

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 \_\_\_\_\_