

This task is to help me know what you know and how I can help you. Don't worry. Try your best.

Name Student A

Nola was selling tickets at the high school dance. At the end of the evening, she picked up the cash box and noticed a dollar lying on the floor next to it.

She said, "I wonder whether the dollar belongs inside the cash box or not."

The price of tickets for the dance was 1 ticket for \$5 (for individuals) or 2 tickets for \$8 (for couples). She looked inside the cash box and found \$200 and ticket stubs for the 47 students in attendance. Does the dollar belong inside the cash box or not? Justify your answer.

s = single tickets

c = couples tickets

$$5s + 4c = 200$$

$$s + c = 47$$

$$47(-4) = -188$$

$$5s + 4c = 200$$

$$\underline{-4s - 4c = -188}$$

$$s = 12$$

number of single tickets

$$s + c = 47$$

$$12 + c = 47$$

$$c = 35 \text{ \# of couples tickets}$$

$$5(12) + 4(35) = 200$$

$$60 + 140 = 200$$

no, the dollar does not belong in the cash box

This task is to help me know what you know and how I can help you. Don't worry. Try your best.

Name Student B

Nola was selling tickets at the high school dance. At the end of the evening, she picked up the cash box and noticed a dollar lying on the floor next to it.

She said, "I wonder whether the dollar belongs inside the cash box or not."

The price of tickets for the dance was 1 ticket for \$5 (for individuals) or 2 tickets for \$8 (for couples). She looked inside the cash box and found \$200 and ticket stubs for the 47 students in attendance. Does the dollar belong inside the cash box or not? Justify your answer.

Let s = number of single students
 c = number of couples
 $2c$ = number of tickets sold to couples

$$5s + 8c = 200$$

$$s + 2c = 47$$

$$\begin{array}{r} 5s + 8c = 200 \\ -4s - 8c = -188 \\ \hline s = 12 \end{array}$$

$$s + 2c = 47$$

$$12 + 2c = 47$$

$$2c = 35$$

$$c = 17.5$$

you can't have $\frac{1}{2}$ a couple buy a ticket at the couples price

$$\begin{array}{r} \rightarrow \begin{array}{r} 5s + 8c = 201 \\ -4s - 8c = -188 \\ \hline s = 13 \end{array} \end{array}$$

$$13 + 2c = 47$$

$$2c = 34$$

$$c = 17$$

13 singles and 17 couples would earn \$201 for the cash box

This task is to help me know what you know and how I can help you. Don't worry. Try your best.

Name Student C

Nola was selling tickets at the high school dance. At the end of the evening, she picked up the cash box and noticed a dollar lying on the floor next to it.

She said, "I wonder whether the dollar belongs inside the cash box or not."

The price of tickets for the dance was 1 ticket for \$5 (for individuals) or 2 tickets for \$8 (for couples). She looked inside the cash box and found \$200 and ticket stubs for the 47 students in attendance. Does the dollar belong inside the cash box or not? Justify your answer.

$$5i + 8c = 200$$

$$i + c = 47$$

$$i = 47 - c$$

$$5(47 - c) + 8c = 200$$

$$235 - c + 8c = 200$$

$$7c = 35$$

$$c = 5 \text{ couples}$$

$$i + c = 47$$

$$i + 5 = 47$$

$$i = 42 \text{ individuals}$$

no, the dollar doesn't go in the cash box