

Let c = the number of cherry pies sold and p = the number of peach pies sold. Then the information leads you to two equations:

$$c + p = 25 \text{ and } 4c + 3p = 84$$

Multiply the first equation by -3 : $-3c - 3p = -75$

Add this to the second equation: $c = 9$

Substitute into the first equation: $9 + p = 25$, so $p = 16$