Name: $\qquad$

## Warm-up

Using Systems of Equations to Solve Word Problems
Define your variables. Write two equations from the given information. Solve the system and state your solution, including units.

1) Julia has 21 coins, all quarters and nickels, in her piggy bank. If the value of the coins is $\$ 2.85$, how many of each type of coin does she have?

Variables:
Show work here.


Equations: $\qquad$
$\qquad$
Solution: $\qquad$
$\qquad$
2) The price of a watch is $\$ 10$ less than twice the price of a necklace. If three watches and two necklaces cost $\$ 610$, find the price of each item.

Variables: $\qquad$
Show work here.


Equations: $\qquad$
$\qquad$
Solution: $\qquad$
$\qquad$
3) Abbi is making a mixture of two different teas. A $25-\mathrm{kg}$ mixture of tea is made from one brand that sells for $\$ 4.50$ per kg and another brand that sells for $\$ 5.75$ per kg. How many kg of each must be used to make a mixture that sells at $\$ 4.90$ per kg ?

Variables:
Show work here.


Equations: $\qquad$
$\qquad$
Solution: $\qquad$
$\qquad$
4) A rectangle's length is 30 yards less than four times the width. The perimeter is 190 yards. Find the length and width of the rectangle.

Variables:
Show work here.


Equations: $\qquad$
$\qquad$
Solution: $\qquad$

