For each problem, include an equation, work, and a logical solution.

1. Shirley is going to have the exterior of her home painted. Tim's Painting charges $\$ 250$ plus $\$ 14$ per hour. Colorful Paints charges $\$ 22$ per hour. How many hours would the job need to take to pay the same price?

Equation:


Solution:
2. Tracey is looking at two different travel agencies to plan her vacation. $A B C$ Travel offers a plane ticket for $\$ 295$ and a rental car for $\$ 39$ per day. M \& N Travel offers a plane ticket for $\$ 350$ and a rental car for $\$ 33$ per day. What is the minimum number of days that Shirley's vacation should be for M \& N Travel to have the better deal?
Equation:


Solution:
3. Three times the sum of a number and 4 is 8 less than one-half the number. Write and solve an equation to find the number.

## Equation:

Work: $\qquad$

Solution:
4. A square and a rectangle have the same perimeters. The length of a side of the square is $4 x-1$. The length of the rectangle is $2 x+1$ and the width is $x+2$.

Write and solve an equation to find $x$.
Equation:
Solution:
5. Jeremy is looking at two different lawncare companies to weed and mulch his flower beds. Greenscape Lawncare offers to charge $\$ 100$ for the mulch plus \$12 per hr for the labor. D \& J Landscape offers to charge \$23 per hr for the job including the mulch. What is the minimum number of hours the job could be for $D$ \& J Landscape to have the better deal?
Equation:


Solution:

