## Using Formulas to Solve Problems

1. The formula for the area of a triangle is one-half $\mathbf{x}$ base $\mathbf{x}$ height ( $1 / 2 \times b \times h$ ). Find the area of these triangles:

| base | height | area |
| :---: | :---: | :---: |
| 6 | 5 |  |
| 9 | 12 |  |
| 12 | 4 |  |


2. The area of a trapezoid is $A=1 / 2 \times h \times\left(b_{1}+b_{2}\right)$. Find the Area of these trapezoids:

| height | base 1 | base 2 | Area |
| :---: | :---: | :---: | :---: |
| 6 | 12 | 10 |  |
| 5 | 2 | 4 |  |
| 9 | 8 | 6 |  |
| 3 | 2 | 10 |  |


3. The volume of a rectangular prism is height $(h) \times$ width $(w) \times$ length ( 1 ). Find the volume of these prisms:

| height | width | length | Volume |
| :---: | :---: | :---: | :---: |
| 2 | 3 | 8 |  |
| 6 | 3 | 5 |  |
| 2 | 10 | 20 |  |


4.

To calculate a car's speed (MPH, or miles per hour), you divide the miles (M) it travels by the time it takes the car to travel that far (H). See if you can fill in the blanks below:

| miles <br> traveled | time <br> required | MPH |
| :---: | :---: | :---: |
| 90 | 2 |  |
| 180 | 3 |  |
| 200 |  | 50 |
| 600 | 6 |  |
|  | 3 | 9 |


5. You are going on a trip to Mexico, and you want to convert your dollars (d) into pesos (p). Your bank tells you that the exchange rate is 11 pesos for one dollar. You have $\mathbf{\$ 5 0 0}$ dollars. How many pesos can you get for $\mathbf{\$ 5 0 0}$ ? Write a formula, then solve.


