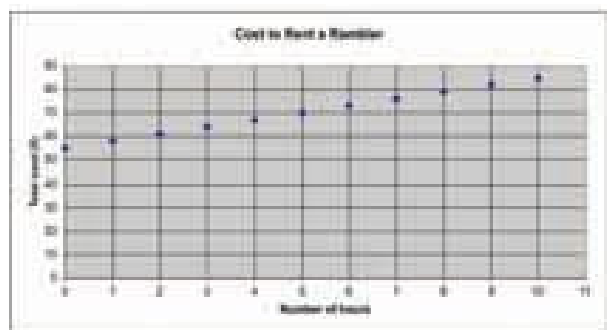


## To graph the relation

- Highlight the data.  
Click the graph/chart icon.  
Select *XY (Scatter)*.  
Label the graph and the axes.  
Your graph may look similar to this:



The points lie on a line so the graph represents a linear relation.  
When the input increases by 1, the output increases by 3.  
The graph goes up to the right.  
This is because the total cost increases for every hour the “Rambler” is rented.

## Check

1. Create a table of values for the “Northern” ATV.  
Use the table of values to graph the relation.  
Describe the relationship between the two variables in the graph.
2. Suppose Chris likes both ATVs equally.  
What conclusions can you make from the tables or the graphs to help Chris save money?



# Choosing a Strategy

Have you ever solved a problem, looked back, and realized you could have solved the problem a different way? There are many different strategies for solving problems.

Try to solve this problem in at least two different ways.



The intramural dodgeball league at your school has 10 teams. Each team must play every other team exactly once. How many games need to be scheduled?

## Try these Steps



What information are you given in the problem?  
Is there any information that is not needed?  
What are you asked to find?  
Is an estimate okay or do you need an exact answer?



What strategies might work for this problem?



Try the strategy you think will work best. If you have trouble solving the problem, try a different strategy. You might have to try 3 or 4 strategies.



Have you answered the question?  
Does your answer seem reasonable?  
How do you know you have found all the answers?

## Strategies

- Make a table.
- Use a model.
- Draw a diagram.
- Solve a simpler problem.
- Work backward.
- Guess and test.
- Make an organized list.
- Use a pattern.
- Draw a graph.
- Use logical reasoning.

Use at least two different strategies to solve each problem.

1. A rectangular field has length 550 m and width 210 m. Fence posts are placed 10 m apart along the perimeter of the field, with one post in each corner. How many fence posts are needed?
  
2. A basketball tournament starts at 10:00 a.m. The winners play every 1.5 h and the losers are eliminated. The winning team finishes their last game at 4:00 p.m. How many teams are in the tournament?
  
3. Marsha and Ivan have money to spend at the Raven Mad Days Celebration in Yellowknife. If Marsha gives Ivan \$5, each person will have the same amount. If, instead, Ivan gives Marsha \$5, Marsha will have twice as much as Ivan. How much money does each person have?



4. Briony wants to print copies of her new brochure. The local print shop charges 15¢ a copy for the first 25 copies, 12¢ a copy for the next 50 copies, and 8¢ a copy for any additional copies. How much would Briony pay for each number of copies?
  - a) 60 copies
  - b) 240 copies
  
5. How many different necklaces can you make with:
  - a) one red bead, one yellow bead, and one green bead?
  - b) two red beads, one yellow bead, and one green bead?
 Justify your answers.