The boomerang company, Gel Boomerangs makes boomerangs. The four armed freestyle boomerang, Quad has a fixed cost of $17,430 and has the following Variable costs: Material costs per unit =$4.30, Assigned Indirect Costs per unit =$1.15, Labor costs per unit =$4.17. In addition, the Wholesale Price (Revenue) that is charged for each $16.50 and it is assumed that the percentage of boomerangs made that are not sold (defects & returns) is 2%.

The goal is to calculate total profit.

Create a model that will calculate Total profit if the number of units produced (Quantity) is 2,000.

Create the model with math formulas and with an Influence Diagram.

Create a formula to calculate the break-even point at units produced equals 2,000.

Use Goal Seek to calculate the break-even point by changing the formula input Quantity.

If estimated demand is 3,000 units, should we produce this product?

With Quantity set at 2,500 Use Goal Seek to calculate the break-even point by changing the formula input 'Revenue'.

If we thought that we could sell 2,500 units at a price between 18.95 and 19.95, should we produce?

Use the 1 Variable Data Table feature to calculate the amounts for Total Revenue, Fixed Costs and Total Costs, Total Profit for various Quantity. Calculate the amount from 0 until 5,000, using an increment of 500. You can try to create the same results with a formula to double check.

Create a Chart that shows the Fixed Costs, Total Revenue and Total Costs and that shows the break Even point.

Use the 2 Variable Data Table feature to vary Quantity and the % of boomerangs made that are defective and cannot be sold for the Total Profit.