## Apple Orchard Design

Name $\qquad$ Date $\qquad$

It is time to design our apple orchard. In a few weeks, we will be planting apple trees. Apple Orchard Designs are out for bidding. Your job is to design an apple orchard that fits our needs. We can plant between 10~20 trees. The most valuable design will be chosen.

| Specification | Included |
| :---: | :---: |
| Consider our land layout |  |
| Choose between dwarf and semi dwarf apple tree |  |
| Semi-dwarf requires 15' spacing each |  |
| Dwarf tree requires 10' spacing each |  |
| Specify number of trees planted |  |
| Plant in rows: $\mathrm{N} \sim \mathrm{S}$ |  |
| Use graph paper for the blueprint |  |
| Use graph paper for calculations |  |
| State the scale: example - each square on the paper represents 1 square foot |  |
| Show clear area calculations of the orchard |  |
| Show clear perimeter calculations of the orchard |  |
| Design the fence around the orchard. Calculate |  |
| Neat and professional |  |
| A. Presentation of the project |  |
| B. Final Report <br> 1. Summarize your work <br> 2. Total area of the orchard <br> 3. Total perimeter of the orchard <br> 4. Total fence measurements |  |
| C. Reflection <br> 1. How does this project relates to the real life? <br> 2. What type of mathematical strategies did you use during this project? <br> 3. How accurate your results are? Why? <br> 4. Do your results make sense in real life? |  |

