Score Sheet for 2016 Fluor Engineering Challenge

Sorting points

Your goal is to sort 6mm spheres into cup A and 12mm spheres into cup B. First, count the beads that landed in each cup. Do not count spheres that get stuck in the machine or do not land in a cup.

Number of 6mm beads in cup A	
Number of 12mm beads in cup B	
Total number of **correctly** sorted beads	
Number of 6mm beads in cup B	
Number of 12mm beads in cup A	
Total number of **incorrectly** sorted beads	

Then, use this equation to calculate your sorting points. Fill in your values from the table to do the calculation:

> Sorting points   =   200 x (Correctly sorted beads – Incorrectly sorted beads)
>
> _____   =   200 x (_____ - _____)

Material points

Count how many cups, popsicle sticks, and sheets of paper you used to build your machine. Do not count the 3 cups that you used to pour and collect the spheres.

> *Material points = 150 x (# of cups used) + 30 x (# of popsicle sticks used) + 75 x (sheets of paper used)*
>
> _____ = 150 x _____ + 30 x _____ + 75 x _____

Time points

Use a stopwatch to time how long it takes from when you start pouring the beads until the last bead falls into a cup or out of the machine.

> *Time points = 50 x time in seconds*
>
> _____ = 50 x _____

Total Score

> *Total score = Sorting points – Material points – Time points*
>
> _____ = _____ - _____ - _____