Math 4SN   PPPPPPPParabolas?????

1.   In the next few days you should be taking pictures of what you think are parabolas.
2.   You must print out at least 5 of these pictures and bring them into class on Friday, November 2nd.
3.   Further instructions will be given in class….
4.   The following criteria will be used to evaluate your work:

Criterion B: Investigating patterns

Level	Level descriptor - The student is able to....
7–8	i. **select** and **apply** mathematical problem-solving techniques to discover complex patterns. ii. **describe** patterns as general rules consistent with correct findings. iii. **prove, or verify and justify** these relationships and/or general rules.
5–6	i. **select and apply** mathematical problem-solving techniques to discover complex patterns. ii. **describe** patterns as general rules consistent with findings. iii. **verify** the validity of these general rules.
3–4	i. **apply** mathematical problem-solving techniques to discover simple patterns. ii. **suggest** general rules consistent with findings.
1–2	i. **apply**, with teacher support, mathematical problem-solving techniques to discover simple patterns ii. **state** predictions consistent with patterns.
0	The student does not reach a standard described by any of the descriptors above.

Criterion D: Applying mathematics in real-life contexts

Level	Level descriptor - The student is able to...
7–8	i. **identify** the relevant elements of the authentic real-life situation ii. **select** appropriate mathematical strategies to model the authentic real- life situation iii. **apply** the selected mathematical strategies to reach a correct solution to the authentic real-life situation iv. **justify** the degree of accuracy of the solution v. **justify** whether the solution makes sense in the context of the authentic real-life situation.
5–6	i. **identify** the relevant elements of the authentic real-life situation ii. **select** adequate mathematical strategies to model the authentic real-life situation iii. **apply** the selected mathematical strategies to reach a valid solution to the authentic real-life situation iv. **explain** the degree of accuracy of the solution v. **explain** whether the solution makes sense in the context of the authentic real-life situation.
3–4	i. **identify** the relevant elements of the authentic real-life situation ii. **select**, with some success, adequate mathematical strategies to model the authentic real-life situation iii. **apply** mathematical strategies to reach a solution to the authentic real- life situation iv. **discuss** whether the solution makes sense in the context of the authentic real-life situation.
1–2	i. **identify** some of the elements of the authentic real-life situation ii. **apply** mathematical strategies to find a solution to the authentic real-life situation, with limited success.
0	The student does not reach a standard described by any of the descriptors above.

<p style="text-align:center;"><u>TO PARABOLA OR NOT TO PARABOLA, THAT IS THE QUESTION!!</u></p>

<u>DUE</u>: Thursday, November 8th. Names: _____

_____

YOUR ULTIMATE GOAL IS TO DETERMINE AND PROVE WHETHER THE FIGURE IS A PARABOLA OR NOT.

1) You may use the grid provided
2) Find a way to try to verify/validate whether the figure is a parabola or not… show ALL of your calculations
3) Explain/justify your reasoning - include a discussion about the accuracy of your measurements
4) You must submit one which you have determined is DEFINITELY NOT a parabola and one which DEFINITELY IS a parabola

Your goal is to complete the following:

Criterion B:
  i. **select** and **apply** mathematical problem-solving techniques to discover patterns.
  ii. **describe** patterns as general rules consistent with correct findings.
  iii. **prove, or verify and justify** these relationships and/or general rules.

Criterion D:
  i. **identify** the relevant elements of the authentic real-life situation (key coordinates)
  ii. **select** appropriate mathematical strategies to model the authentic real- life situation (the rule)
  iii. **apply** the selected mathematical strategies to reach a correct solution to the authentic real-life situation (is it a parabola)
  iv. **justify** the degree of accuracy of the solution (accuracy of coordinates/ calculations)
  v. **justify** whether the solution makes sense in the context of the authentic real-life situation.