Busch Gardens Skyride Construction Project

You and your partner have been asked by Busch Gardens Williamsburg and Company to create a new Skyride system. They currently have a ride that circulates between locations in France, Germany, and England. This current ride, however, does not access other regions of the park, making foot travel the main means for guests to get from place to place. Your job as a design-builder is to make a convex polygon Skyride that covers a perimeter of at least **5,500** feet and has at minimum 8 stops. You may choose the locations of your stops as long as you create a convex polygon.

Busch Gardens has asked that you install your ride prior to the opening of *Christmas Town*, so they have supplied you with a map with the Christmas locations so that you may use them as reference points for your Skyride stop locations. You and your partner will be asked to present your ride in two formats:

1. WRITTEN DESCRIPTION-Have a two to four paragraph description of your Skyride locations
   1. Explain why you chose these locations. Specifically describe why these locations will allow for the guests to have easier travel patterns from different parts of the park.
   2. Include the distances from stop to stop as well the measure for the interior angles of the polygon Skyride. (\*\*use the scale located on the map to find your distances. Use the protractors provided to correctly calculate the interior angles.)
2. BUILD- create your Skyride!
   1. Using the *Christmas Town* map as your guide, create a drawing or blueprint of your Skyride. Yes, you may use an electronic platform but you must be able to save it to a thumb drive and submit it to your teacher. Make sure your name is on it. It will be saved and returned to you on test day. Presentation is key! Be creative!

You and your partner will be graded on the two formats listed on the previous page. This project will count as 30% of your Regular Polygons test. See the rubric below as to how the project will be graded.

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| **SCALE** | **2 points** | **4 points** | **6 points** | **10 points** |
| **Description** | * Did not explain ride, name their ride, nor show path of ride * Did not correctly describe project details * Did not provide any mathematical evidence to prove construction of ride | * Attempted to explain the ride, but did not write a full description nor give it a name * Provided partial mathematical evidence to prove construction of ride. | * Answered all questions correctly with appropriate math language. * Provided partial mathematical evidence to prove construction of ride. * Ride covers at least the 5,500 foot perimeter | * Answered all questions correctly with appropriate math language * All mathematical evidence is provided, including angles and sides of the polygon ride. * Ride covers more than the 5,500 foot perimeter requirement |
| **Design-Build** | * Constructed a concave polygon structure that did not include all required elements. * The presentation of the ride is messy and poorly designed. | * Constructed a convex polygon and only included angle measurements. * The presentation of the ride lacks clarity and has a basic look – no creativity is evident | * Constructed a convex polygon that covers the park * Includes all angle and length measurements but mathematics are incorrect. * The presentation is basic, with color, but no creativity. | * Constructed a convex polygon structure including all required elements as well as additional information to make it “pop” with rider excitement * The presentation of the ride is attractive in terms of design, layout, and neatness. * Major creativity was presented |
| **Use of Class Time** | * Did not use class time to focus * Distracted others * Texting * Had phone out * Did not help partner * Received a poor rating by partner | * Focus on task was 50% * Occasionally distracted others. * Texting * Had phone out * Had minimal work completed with partner * Received a below average rating by partner | * Used 75% of class time during each class period * Focused 75% of class time getting the project done * Never distracted others. * Texting * Had phone out * Received an average rating by partner on help with task, writing descriptions, completed the project | * Used 100% of class time to focus on task at hand * Never distracted others * Never texting * Never had phone out * Received an above average rating by partner on all pieces of the required project |

As an added 5 point bonus:

Use SIN-COS-TAN to determine the AOE/AOD at all your stops if the length of the incline/decline track is a required 210 feet with a ground length of 185 feet.