Bayonne Public Schools
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Summer Bridges: Incoming Algebra II Choice Board

This summer, your child can continue building a strong foundation in mathematics by completing a Math Choice Board. He or she will also have the opportunity to earn ten extra credit points on the first math test of the 2026-2027 school year.

All completed choice board activities are due to your child's math teacher on Thursday, September 10, 2026.

Directions: *Complete any* ***three*** *boxes* ***in a row*** *(horizontally, vertically, or diagonally). Be sure to keep all of your work to hand in to your new math teacher in September.*

Summer Conditions Write three summer-themed conditional statements. (Example: "If it is July 4th, then there will be fireworks.") For each, write its converse, inverse, and contrapositive. Determine which of your 12 total statements are actually true.	**Picnic Blanket Angles** A striped picnic blanket has two parallel lines cut by a transversal. One angle measures 118°. Find all 7 remaining angle measures and classify each relationship (alternate interior, corresponding, etc.). Draw and color-code the diagram.	**Sandcastle Trigonometry** A sandcastle tower casts a 14-foot shadow. The angle of elevation from the tip of the shadow to the top of the tower is 52°. Use tangent to find the height of the tower to the nearest tenth. Draw and label the triangle.
Ferris Wheel Circles A Ferris wheel has a radius of 20 feet. A rider travels along an arc measuring 135°. Find the arc length and the area of the sector formed. Use 3.14 for pi. Draw and label the circle.	**Pool Float Transformations** A triangular-shaped pool float has vertices A (1, 2), B (4, 2), and C (3,5). Translate the triangle right 5 and down 2. Then, reflect the image across the line y = 1. Draw and label all coordinates.	**Life Guard Stand Distances** At a boardwalk, lifeguard stations are located at points (2, 5) and (10, 11). Find the midpoint and distance between the stations using the midpoint and distance formulas.
Beach Umbrella Angles A beach umbrella pole creates two adjacent angles measuring 3x + 12 and 5x - 28. Since they form a linear pair, solve for x and find both angle measures. Then draw and label the angles with a protractor.	**Fireworks Proof** A firework launcher forms triangle ABC with AB = 12, BC=15, and ∠B=70°. Another launcher forms triangle DEF with DE=12, EF=15, and ∠E=70°. Prove the triangles are congruent using SAS and explain why the fireworks travel the same path.	**Ice Cream Shop Probability** An ice cream shop offers 4 cone flavors, 3 toppings, and 2 drizzle choices. How many different ice cream combinations are possible if a customer chooses 1 flavor, 1 topping, and 1 drizzle? Then determine the probability that a customer randomly chooses chocolate drizzle. Show organized work.