PARK CITY HIGH SCHOOL

Standards-Based Education
Priority Standards

Secondary Math III Honors

PS 1 Students will find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers. (Standard N.CN.3)

PS 2 Students will represent complex numbers on the complex plane in rectangular form and polar form (including real and imaginary numbers), and explain why the rectangular form of a given complex number represents the same number. (Standard N.CN.4)

PS 3 Students will represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. For example, $(-1 + \sqrt{3}\, i)3 = 8$ because $(-1 + \sqrt{3}\, i)$ has modulus 2 and argument 120°. (Standard N.CN.5)

PS 4 Students will calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints. (Standard N.CN.6)

PS 5 Students will multiply complex numbers in polar form and use DeMoivre's Theorem to and roots of complex numbers. (Standard N.CN.10)

PS 6 Students will graph functions expressed symbolically, and show key features of the graph, by hand in simple cases and using technology for more complicated cases. (Standard F.IF.7)

PS 7 Students will understand the inverse relationship between exponents and logarithms, and use this relationship to solve problems involving logarithms and exponents. (Standard F.BF.5)

PS 8 Students will use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions. (Standard F.TF.4)

PS 9 Students will understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed. (Standard F.TF.6)

PS 10 Students will use the inverse functions to solve trigonometric equations that arise in the modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context. (Standard F.TF.7)

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PS 11 Students will give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures. (Standard G.GMD.2)

PS 12 Students will use permutations and combinations to compute probabilities of compound events and solve problems. (Standard S.CP.9)

PS 13 Students will use the inverse functions to solve trigonometric equations that arise in the modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context. (Standard F.TF.7)