**Precalculus**

**Learning Goals**

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| **#** | **Learning Goal** | **Standard(s)** |
| P01 | Use polynomial identities to solve mathematical problems, including the Fundamental Theorem of Algebra. | A-APR.3.4, A-APR.3.5N-CN.3.9 |
| P02 | Rewrite rational expressions. | A-APR.4.6, A-APR.4.7 |
| P03 | Build functions that model relationships between quantities, and new functions (inverse/composite) from existing functions. | F-BF.1.1, F-BF.2.4 |
| P04 | Extend the domain of trigonometric functions using the unit circle. | F-TF.1.1, F-TF.1.2, F-TF.1.3, F-TF.1.4 |
| P05 | Model periodic phenomena using trigonometric functions. | F-TF.2.5, F-TF.2.6, F-TF.2.7 |
| P06 | Prove and apply trigonometric identities. | F-TF.3.8, F-TF.3.9 |
| P07 | Translate between the geometric description and the equation for a conic section. | G-GPE.1.1, G-GPE.1.2, G-GPE.1.3 |
| P08 | Define trigonometric ratios and apply trigonometry to general triangles. | G-SRT.3.8, G-SRT.4.9, G-SRT.4.10, G-SRT.4.11 |
| P09 | Represent complex numbers and their operations on the complex plane. | N-CN.1.3, N-CN.2.4, N-CN.2.5 |
| P10 | Represent and model with vector quantities. | N-VM.1.1, N-VM.1.2, N-VM.1.3 |
| P11 | Perform operations on vectors. | N-VM.2.4, N-VM.2.5 |
| P12 | Understand continuity in terms of limits, using graphs, tables, and equations to identify points and types of discontinuity. | C.1.9, C.1.10, C.1.11 |
| P13 | Estimate and calculate limits, including operations on functions, one-sided limits, and limits of rational functions. | C.1.1, C.1.2, C.1.3, C.1.4, C.1.5 |
| P14 | Understand and use the Intermediate and Extreme Value Theorems over closed intervals | C.1.12, C.1.13 |