|  |  |
| --- | --- |
| Course: | Pre-Calculus, Honors – Chapter 9: Polar Coordinates and Complex Numbers |
| Score 4 | In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. |
| Score 3 | The student will:    Graph classical curves (Rose, Lemniscate, Limacon, Cardioid, Spiral of Archimedes)Convert between polar and rectangular coordinatesPerform operations with complex numbers in polar formConvert between rectangular and polar forms of complex numbersFind powers and roots of complex numbers (Including DeMoivre’s Theorem) |
| Score 2 | The student will recognize or recall specific vocabulary, such as:  • Absolute value of a complex number, cardioid, complex conjugates, complex number, complex plane, imaginary number, lemniscate, limacon, polar axis, polar coordinates, polar equation, polar form of a complex number, polar graph, polar plane, pole, rectangular form of a complex number, rose, spiral of Archmiedes, trigonometric form of a complex number, principal roots  The student will perform basic processes, such as:  • Graph polar coordinates  • Graph basic polar equations (circles and lines)  • Perform operations with complex numbers in rectangular form |
| Score 1 | With help, partial success at score 2.0 content and score 3.0 content |
| Score 0 | Even with help, no success |