|  |  |  |  |
| --- | --- | --- | --- |
| **LG #** | **P10** | **Standards:** | **N-VM.1.1, N-VM.1.2, N-VM.1.3** |
| **4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond instruction to the standard.****The student will be able to:*** Create two 3-dimentional vectors that are orthogonal to each other.

**No major errors or omissions regarding the score 4.0 content.** |
| **3.5** | In addition to 3.0, in-depth inferences and applications with partial success. |
| **3.0** | **Students will be able to represent and model with vector quantities.****The student will be able to:*** Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point(N-VM.1.2)
* Solve problems involving velocity and other quantities that can be represented by vectors (N-VM.1.3)

**No major errors or omissions regarding the score 3.0 content (simple or complex).** |
| **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of 3.0 content. |
| **2.0** | **The student recognizes and describes specific terminology such as:**

|  |  |  |
| --- | --- | --- |
| * Vector
 | * Magnitude
 | * Direction
 |
| * Directed Line Segment
 | * Vector Components
 | * Initial Point
 |
| * Terminal Point
 | * Velocity (vector)
 | * Speed (scalar)
 |

**The student will be able to:*** Recognize vector quantities as having both magnitude and direction(N-VM.1.1)
* Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (N-VM.1.1)
 |
| **1.5** | Partial knowledge of the score 2.0 content, but major errors or omissions regarding score 3.0 content. |
| **1.0** | With partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |
| **0.5** | With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |
| **0.0** | Even with help, no understanding or skill is demonstrated |