**Space Systems – Graphing Skills**

Graph the data from the table below. These data show the distance to several galaxies and each galaxy’s velocity in relation to Earth. Put distance on the horizontal axis, and put velocity in relation to Earth on the vertical axis.

|  |  |  |
| --- | --- | --- |
| **Object** | **Distance**  **(light-years)** | **Velocity**  **(km/s)** |
| Centaurus A | 2,116,000 | 251 |
| M66 | 3,680,000 | 593 |
| M49 | 6,746,000 | 822 |
| Fornax A | 9,200,000 | 1,713 |

**A. Understanding Relationships** Estimate the distance between Earth and a galaxy whose velocity is 2,000km/s.

**B. Predicting Patterns** What is the approximate velocity for a galaxy that is 5,000,000 light-years from Earth?

**C. Analyzing Information** The Andromeda galaxy is 224,000 light years away and the galaxy’s velocity in relation to Earth is -10km/s. What does this position mean for the motion of the galaxy in relation to Earth?

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