Topic 8: Creating Equations (A.CED 2)

Purpose: The purpose of the first three examples is to get students to introduce students to direct and inverse variation. The final three examples ask students to apply the concepts of direct and inverse variation in the problem solving process. Please use your professional judgment when following this guide, if students are struggling with the content and need more support, then provide that additional support.

Core Standards Focus:
A.CED 2 - Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

Launch (Individual time): The first four examples are designed to be completed through a whole-class discussion. For example 1, you can have a student move the slider while other students make observations about the effect on the graph. Use the example provided to construct a direct variation equation that represents the problem. Have all students justify why the equation represents the given situation and have them share in a Think-Pair-Share (TPS) or other structure. You can go through example 2, 3 and 4 in the same way.

Explore (pairs): Using example 5, give students a few minutes to work together to attempt a solution to the problem. If students are unable to write an equation ask them to make a table to represent the situation. Repeat this process with example 6 to provide students additional practice and to solidify their thoughts.

Discuss (Whole Class): Call on some students to share their choices and talk about their reasoning. Be selective with the student work you use and sequence the work in a way that will connect a variety of ideas. Use the FluidMath program to check their work.