The Intersections task can be used with students or PLCs. Participants might consider the tools they might use to investigate the questions. Participants can do each question as a separate task, or can do all three and compare them using the following topics:

Compare the mathematical ideas you identified as most important in each part of the task:

* What math ideas are common to both (or all three) tasks?
* What math ideas are just in one of the tasks?
* Which task do you think requires more advanced math understanding? Identify the math or the level of understanding that makes one task more advanced than the other(s).

Supporting documents provide examples of student work and dialogue (student work 1, student work 2, Task Dialogue 1&2 Revised) as well as examples of approaches teachers used on each of the three questions in the task (Intersections [Teacher Solutions]). The student work examples can be used with either students or teachers as an opportunity to consider how some students might think about the task.

PLCs should consider the student thinking evident in the two examples and dialogue as a start on considering ways to support students’ thinking about rates of change and the graphs of the functions.