What is a Three-Act Task?

A Three-Act Task poses a mathematical dilemma that students must work together to address. It is set up in three parts, or "acts."

Act One:

In the first act, students are provided with a brief video interview with one of the career professionals. The video serves to capture students' interest and initiate a brief discussion about the video's implications. Students are asked to “notice” and “wonder” about the video, sharing observations they made and questions that popped into their minds as they watched.

Ideally, some of students’ noticings and wonderings are mathematical in nature, but any noticing and wondering is accepted for discussion, assuming it is classroom appropriate. If students don’t offer any mathematical noticings or wonderings, then the teacher can prompt them to do so, such as by asking, “What about the mathematics that the professional discussed? Did they mention anything about the mathematics we have been learning in our class?”

Act Two:

In the second act, students are posed with a mathematical dilemma related to the video and appropriate to the grade level associated with the task. They are asked to discuss what they know and what they need to find out and are then released to work towards a solution to the task, preferably in small groups—although private think time would certainly be appropriate before transitioning into group work.

Act Three:

In the third act, students discuss their solutions, comparing and contrasting their methods and (hopefully) arriving at a consensus about a final solution. If there is still time left in the class period, students can continue to explore the mathematics related to the given career by attempting to solve the extension problem.

Choosing a task for your classroom:

The first slide of each task lists the primary skills addressed in the lesson as well as recommended tools and materials, which are designed to be readily accessible to most teachers. Reading through this information will help you to identify appropriate tasks and to associate them with the mathematics standards you are required to cover in your classes.
Implementing a task

During a Three-Act Task, the teacher acts primarily as a facilitator and a guide, never telling students exactly what to do and instead asking questions to spur students’ thinking. “What do you already know that can help you here? How can you apply what we’ve been learning about this topic to tackle the problem? How might this tool be useful? Did you check your solution to ensure that it works? What did your peer get? How can you reconcile your differences?”

The goal of these tasks is to empower students to imagine themselves in the shoes of the professionals, doing the difficult problem solving that the professionals do in their careers so that the mathematics comes alive and feels meaningful to them rather than rote.