**Blue Waters Petascale Semester Curriculum v1.0**

**Unit 10: Productivity and Visualization**

**Lesson 5: Workflows 1**

**Exercise Instructions for Students**

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*Browse and search the full curriculum at*[*http://shodor.org/petascale/materials/semester-curriculum*](http://shodor.org/petascale/materials/semester-curriculum)

*We welcome your improvements! You can submit your proposed changes to this material and the rest of the curriculum in our GitHub repository at*[*https://github.com/shodor-education/petascale-semester-curriculum*](https://github.com/shodor-education/petascale-semester-curriculum)

*We want to hear from you! Please let us know your experiences using this material by sending email to* [*petascale@shodor.org*](mailto:petascale@shodor.org)The students should watch the videos and reread the lesson before doing the exercises.

It would be good to come up with 2 or 3 exercises for the students to practice what they learned. For this section I think I should put the information above. The exercises should go to the “Sample assessment”. Let me copy them there also.

1. What is scientific workflow?
2. How many scientific workflow tools do you know? What are they? Could you explain the differences?
3. Could you create a simple workflow? As examples, weather forecast in a city, running a program on a supercomputer remotely, etc.