

## Solutions Postings & Reviews Overview of Assignment

(from the Syllabus): *The Solution Postings and Reviews assignment gives you an opportunity to consolidate material from the previous week and to improve your ability to produce a clear written solution that translates your private internal understanding into a public external demonstration of that understanding. In the Wednesday Workshop, your group will be assigned a problem from that week's Quiz or previous week's Problem Set and collectively author a clear solution. One member of the group will post a link to the solution at the appropriate Forum on the program web-site. The Solution Postings are due to be posted by 11:59 pm that Wednesday. Each student will then review and comment on other posted solutions; these Reviews are due by 6:00 pm Fridays.*

This assignment connects to the following Program Learning Goals:

- **Become mathematically and scientifically capable and confident.** [Overarching Program Goal #1]
- **Improve habits for achieving success in future work especially in math and science.** [Overarching Program Goal #2]
- **Participate collaboratively and responsibly in our diverse society.** [Evergreen Expectation #2]
- **Construct viable explanations from evidence and discuss (with an eye to improving) the reasoning of others.** [Additional Program Goal #10]
- **Attend to precision.** [Additional Program Goal #5]
- **Communicate creatively and effectively.** [Evergreen Expectation #3]
- **Obtain, evaluate, and communicate information.** [Additional Program Goal #10]
- **Use appropriate tools strategically.** [Additional Program Goal #4]

### Basic Assignment:

- 1) During Wednesday Workshop, your group will be assigned a problem. This problem will be (or inspired by) a problem from that week's Quiz or the previous week's Problem Sets. The goal of your group is to make sure that each group member understands the problem and its solution.
- 2) Your group will collaboratively produce a public solution to the problem on a whiteboard.
- 3) Your group will briefly show your solution to an instructor or teaching assistant, without explaining it. The instructor or TA will briefly offer suggestions feedback for improving the quality, clarity, and completeness of your public solution. Use that feedback to collaboratively revise your public solution.
- 4) Take a picture of your group's revised public solution by the end of the Workshop.
- 5) One member of the group will save the picture to the appropriate place in the program share Workspace and obtain a link to the picture (details below).
- 6) That group member will post the solution to the appropriate Forum at [blogs.evergreen.edu/patterning](https://blogs.evergreen.edu/patterning) (details below). Solution Postings are due by 11:59 pm Wednesday.
- 7) You will individually Review two (2) Solutions by 6:00 pm Friday.

To post to the Forums, you must log in to the program web-site itself (you might be logged in to your Evergreen account but must also log in to the program web-site directly). In the right hand navigation bar, under Meta, you will find a Log in link.

Your group's Solution should be posted by 11:59 pm Wednesday. Only one group member should post this Solution. Make sure it is clear which group member is responsible for posting that day's Solution. You should track this responsibility and make sure that you yourself post (or share posting) a Solution two (2) times during the quarter. The Solution should be posted to the appropriate Forum, and the topic given the title of the first name of all the group members in alphabetical order, for example: Ginny Harry Hermione Ron.

You are individually responsible for posting a Review to two (2) solutions by 6:00 pm Friday. If your group produced a solution to Problem A, then you will Review solutions to Problem B. If your group produced a solution to Problem B, then you will Review solutions to Problem C. If your group produced a solution to Problem C, then you will Review solutions to Problem A. We will do a practice Review exercise in Thursday's Wrap.

### Details on saving your picture and obtaining and posting the link to the appropriate Forum:

- Save your picture in the program share Workspace, in the folder Solutions; find the appropriate Week.
- Go to <https://myfiles.evergreen.edu/academics/programs/patterning-spring/Workspace/Solutions/> Log in.
- Navigate to the appropriate Week. Find your picture. Right click on the picture to copy the link information.
- Log in to the program web-site. At [blogs.evergreen.edu/patterning](https://blogs.evergreen.edu/patterning), you will find the link to Log in under the right hand side navigation bar, under Meta. Use your regular Evergreen log in.
- From the Solution Postings link in the main menu, find the appropriate week and appropriate problem and click on the link.
- Scroll down to Create New Topic. For Topic Title, enter the first names of your group members in alphabetical order, for example Carrie Miranda Phoebe Samantha.
- Click on the **img** button, and paste the link to your picture where it asks for the URL of the image, and then click OK. If that doesn't work, click on the **link** button instead, and paste the link to your picture, and then click Add Link. Make any text additions or edits that you would like, and then click Submit.
- *On Wed. April 9, Krishna will be available in CAL West from 10:00 – 10:30 and 12:00 – 12:30 to assist in this process.*

## Wednesday Workshop Problems for Solution Posting - Week 2

Goals: all group members should understand problem, solution, and steps in between. Group should collaboratively produce a solution which is clear, complete, and correct, shows all steps/reasoning with all steps valid, and that aims to be a document that someone else can learn from.

- a) Your group will be assigned one of the problems below.
- b) Work together to make sure that all group members understand the problem and its solution.
- c) Use a whiteboard for scratch work and to produce a draft solution.
- d) Collaboratively produce a public solution on a (second) whiteboard.
- e) Show the solution to an instructor or TA, without explaining it.
- f) Get feedback on how solution might be improved.
- g) Revise solution based on feedback.
- h) Take a picture of the revised solution.
- i) Choose a group member to post the solution. Solution must be posted by 11:59 pm tonight.
- j) *In Thursday's Wrap, we will do a practice Review exercise.*
- k) *After Thursday's Wrap and before 6:00 pm Friday, post your Reviews. (In future weeks, you can post Reviews as soon as there are relevant Solutions posted).*

### A. Quiz 1 #1 and Quiz 1 #2:

1. A battery-powered toy car moves at constant speed in a straight line, traveling 2 meters in 8 seconds.
  - a) The car travels for 3 seconds at this same speed in a straight line. How far does it travel in this 3 seconds?
  - b) The car travels for 3 meters at this same speed in a straight line. How long does this 3 meter trip take?
  - c) There are approximately 1609 meters in 1 mile. Determine the speed of the car in miles per hour.
2. A cell phone plan charges a monthly fee of \$50 *plus* \$0.20 per minute.
  - a) You used 200 minutes last month. How much does this cost?
  - b) The month before that, you spent \$100. How many minutes did you use?
  - c) Determine an equation for the function  $C(t)$ , the cost  $C$  (in dollars) as a function of time  $t$  (in minutes) in one month.
  - d) Determine an equation that tells you how many minutes  $M$  you get for a certain number of dollars  $d$  spent in one month, and write this as a function  $M(d)$ .

### B. Quiz 1 #4 and Pre-calculus Problem Set 1 #11:

$f(x)$  is a linear function that goes through the points  $(1, 9)$  and  $(3, 5)$ .

- a) Determine  $f(1)$ . Explain your reasoning.
- b) Determine the slope of the line.
- c) Determine the  $y$ -intercept of the line.
- d) Without doing any further calculations, determine  $f(0)$ . Explain your reasoning.
- e) Solve  $f(x) = 0$  for  $x$ .
- f) Find the  $x$ -intercept of the line.

### C. Physics Problem Set 1 #12:

You walk for 10 km at a constant velocity of 2.5 m/s due west, turn around, and then walk with an average velocity of 0.5 m/s due east. From your starting point to your destination, your overall average velocity is 1.5 m/s due west. During the trip, how far east did you walk?