

Assignment Lines_Review due 09/14/2022 at 12:00pm EDT

Problem 1. (1 point) CUNY/CityTech/CollegeAlgebra_Trig/setLinesReview/slope-formula.pg

What is the slope of the line passing through the points (4, 8) and (2, 7)?

 $m = \underline{\hspace{2cm}}$

- Give your answer as a reduced fraction.
- Do not use decimal approximations.

Hint: (Instructor hint preview: show the student hint after the following number of attempts: 2)

Use the slope formula:

$$\frac{y_A - y_B}{x_A - x_B}$$

Where your points are (x_A, y_A) and (x_B, y_B) .

Correct Answers:

- $\frac{1}{2}$

Problem 2. (1 point) CUNY/CityTech/CollegeAlgebra_Trig/setLinesReview/point-slope-formula.pgFind an equation of the line passing through the points (8, -2) with the slope $m = -\frac{5}{6}$

- Do not use decimal approximations in your answer.

Hint: (Instructor hint preview: show the student hint after the following number of attempts: 2)Hint: Use the point-slope form of a line. $y = m(x - x_A) + y_A$

Correct Answers:

- $y = -\frac{5}{6}(x - 8) - 2$

Problem 3. (1 point) CUNY/CityTech/CollegeAlgebra_Trig/setLinesReview/slope-formula-equation.pg

Find an equation of the line passing through the points $(2, -2)$ and $(-3, -6)$?

- Do not use decimal approximations for your slope.

Hint: (Instructor hint preview: show the student hint after the following number of attempts: 2)

Use the slope formula:

$$\frac{y_A - y_B}{x_A - x_B}$$

Where your points are (x_A, y_A) and (x_B, y_B) .

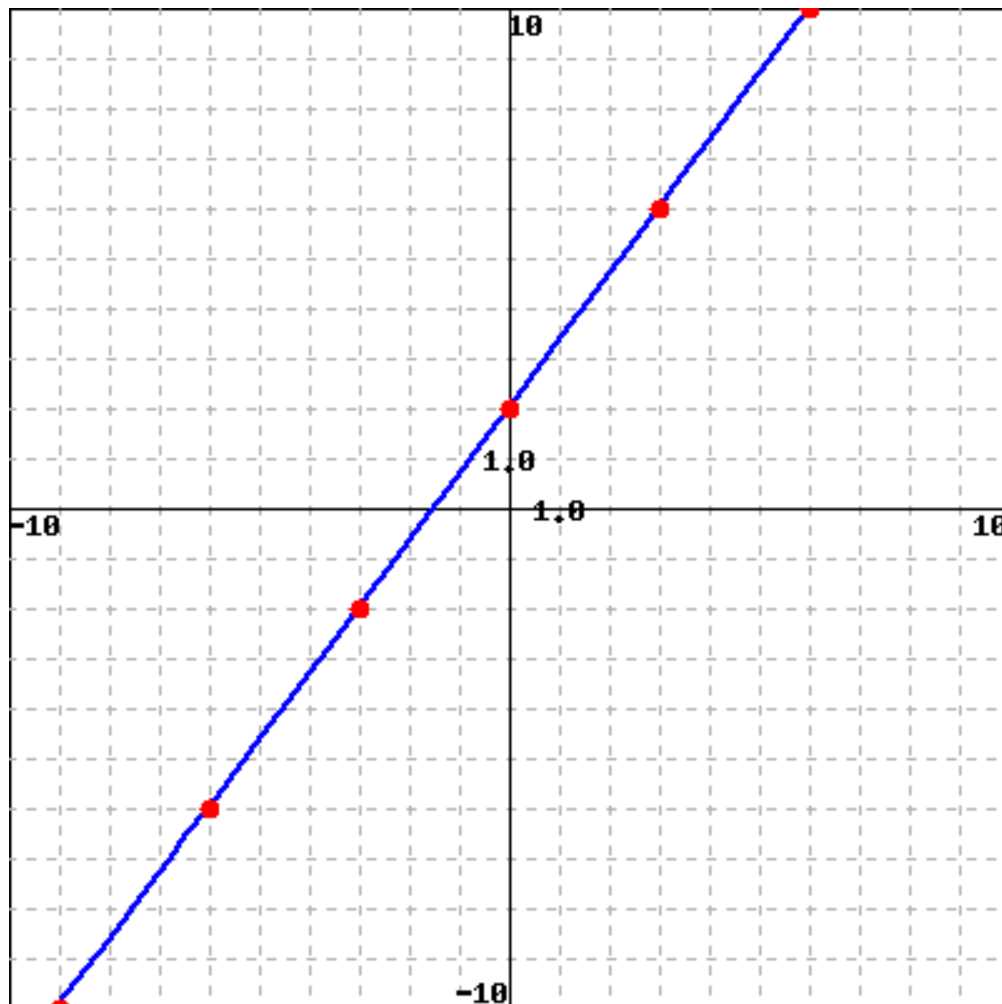
Hint: Use the point-slope form of a line. $y = m(x - x_A) + y_A$

Correct Answers:

- $y = \frac{4}{5}(x - 2) - 2$

Problem 4. (1 point) CUNY/CityTech/CollegeAlgebra_Trig/setLinesReview/from-graph-integ-inter.pg

Find an equation for the line graphed below:



- Do not use decimal approximations in your answer.

Hint: (Instructor hint preview: show the student hint after the following number of attempts: 2)

Start by identifying a couple of “nice” points on the grid that the line passes through.

Once have two points for your line to pass through, you can determine the slope.

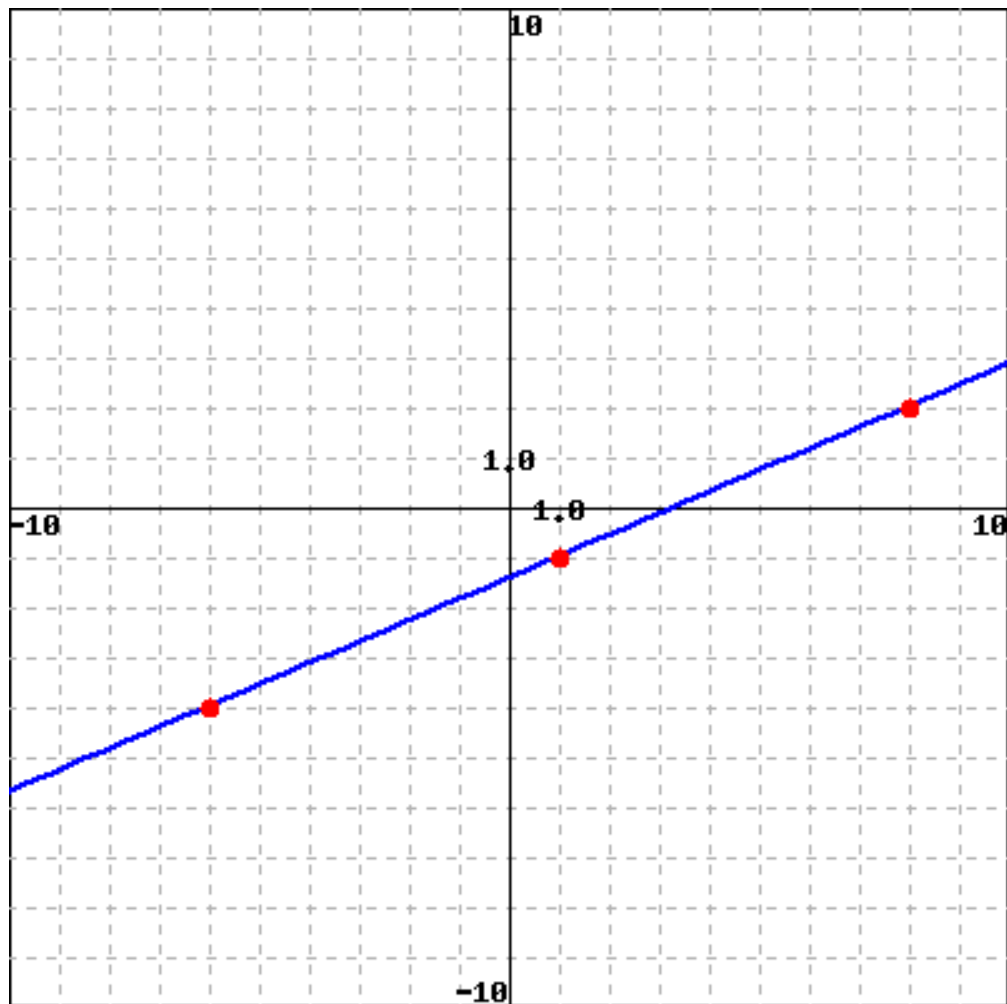
Use the point-slope form of a line. $y = m(x - x_A) + y_A$

Correct Answers:

- $y = \frac{1}{3}x + 2$

Problem 5. (1 point) CUNY/CityTech/CollegeAlgebra_Trig/setLinesReview/from-graph-ratl-inter.pg

Find an equation for the line graphed below:



- Do not use decimal approximations in your answer.

Hint: (Instructor hint preview: show the student hint after the following number of attempts: 2)

Start by identifying a couple of “nice” points on the grid that the line passes through.

Once have two points for your line to pass through, you can determine the slope.

Use the point-slope form of a line. $y = m(x - x_A) + y_A$

Correct Answers:

- $y = \frac{3}{7}(x - 1) - 1$

Problem 6. (1 point) CUNY/CityTech/CollegeAlgebra_Trig/setLinesReview/parallel-formula.pg

Find an equation of the line passing through the point $(-8, 3)$ that is parallel to the line $y = \frac{4}{3}x + 3$

- Do not use decimal approximations in your answer.

Hint: (Instructor hint preview: show the student hint after the following number of attempts: 2)

You have a point for your line to pass through, all you need is the slope.

What do you know about the slopes of parallel lines?

Use the point-slope form of a line. $y = m(x - x_A) + y_A$

Correct Answers:

- $y = \frac{4}{3}(x + 8) + 3$

Problem 7. (1 point) CUNY/CityTech/CollegeAlgebra_Trig/setLinesReview/perpendicular-formula.pg

Find an equation of the line passing through the point $(1, -5)$ that is perpendicular to the line $y = \frac{7}{2}x - 1$

- Do not use decimal approximations in your answer.

Hint: (Instructor hint preview: show the student hint after the following number of attempts: 2)

You have a point for your line to pass through, all you need is the slope.

What do you know about the slopes of perpendicular lines?

Use the point-slope form of a line. $y = m(x - x_A) + y_A$

Correct Answers:

- $y = -\frac{2}{7}(x - 1) - 5$