

**MATH 6A/D: HOMEWORK 24**  
**DEADLINE: FRIDAY, APRIL 16TH, 2021**

In this homework I want you to practice more working with equations of a circle, systems of linear equations and finish your Geometry Review Google Sheet. Please refer to our classroom Jamboard to refresh your understanding of these topics.

PROBLEMS

1. (a) Draw the graph of the equation  $x^2 + y^2 - 16 = 0$ .  
(b) Draw the graph of the equation  $(x - 2)^2 + (y - 4)^2 = 4$ .  
(c) Draw the graph of the equation  $(x + 2)^2 + (y - 2)^2 = 25$ .
2. Solve systems of linear equations by using either of the two methods: elimination or substitution. Where possible graph both simplified equations on the coordinate plane to show that your solution is indeed the intersection point of the two lines.

(a)

$$\begin{aligned}3x - 2y &= -1 \\x + y &= 3\end{aligned}$$

(b)

$$\begin{aligned}x + 3y &= -4 \\x - y &= 0\end{aligned}$$

(c)

$$\begin{aligned}\frac{2x - 1}{5} + \frac{3y - 2}{4} &= 2 \\ \frac{3x + 1}{5} - \frac{3y + 2}{4} &= 0\end{aligned}$$

(d)

$$\begin{aligned}1 - x &= 3(2x + y - 1) \\2 + 2x &= 6(2x + y - 1)\end{aligned}$$

(e)

$$\begin{aligned}5x + 12\frac{y - 1}{3} &= 6 \\x + 6\frac{y - 1}{3} &= 0\end{aligned}$$

(f)

$$\begin{aligned}(4x - 2)(3y + 5) &= (4y - 3)(3x + 1) \\4(y - 2) - 2(2x - 3) &= 12\end{aligned}$$

3. Finish your Geometry Review Google Sheets and submit your answers in Google Classroom. You can find the link to the Google Sheets document in the description of Homework 24 in Google Classroom.