

8. Roll the dice and flip a coin to find coordinates of another **point** →

Write an equation of the line that goes through your point and is parallel to this line: $y = 2x - 7$:

Enter your point and the equation of your new line into slide 7 of the Desmos activity. Make sure the lines are parallel, and that the new line goes through your point.

Simplify the line into slope-intercept form and write it here:

9. Roll the dice and flip a coin to find coordinates of another **point** →

Write an equation of the line that goes through your point and is perpendicular to this line: $y = 2x - 7$:

Enter your point and the equation of your new line into slide 8 of the Desmos activity. Make sure the lines are perpendicular, and that the new line goes through your point.

Simplify the line into slope-intercept form and write it here:

10. An equation of a line in point-slope form is $y = 4 + \frac{1}{2}(x - 3)$.

What is the **slope** of this line?

Name a **point** on the line:

Enter the coordinates of your point into slide 9 of the Desmos activity to verify that the point is on the line.

11. An equation of a line in point-slope form is $y = -2 + 4(x + 1)$.

What is the **slope** of this line?

Name a **point** on the line:

Enter the coordinates of your point into slide 10 of the Desmos activity to verify that the point is on the line.

12. An equation of a line in point-slope form is $y = 8 - 3(x + 5)$.

What is the **slope** of this line?

Name a **point** on the line:

Enter the coordinates of your point into slide 11 of the Desmos activity to verify that the point is on the line.

13. Describe in your own words the difference between the point-slope form of a line and the slope-intercept form: