Student Activity on Equation of a Line

Use in connection with the interactive file “Equation of a Line” on the Student’s CD.

To explore equations of a line in the form $y=mx+c$

1. Move the slider $m$. What happens the slope of the line as $m$ increases?__________

2. Move the slider $m$. What happens the slope of the line as $m$ decreases?__________

3. Move the slider $m$. When $m$ is positive describe the line_____________________

4. Move the slider $m$. When $m$ is negative describe the line_____________________

5. Move the slider $m$. When $m=0$ describe the line______________________________

6. Which part of the equation of the line is related to the slider $m$?_______________
7. Move the slider c. What happens the line as c increases?

8. Move the slider c. What happens the line as c decreases?

9. Move the slider c. Compare the value of c to the point where the line crosses the y-axis. Describe the relationship between c and this point (the y-intercept)?

10. Which part of the equation of the line is related to the slider c?

11. The equation of a line is y = 2x+3. Write down the slope of this line.

12. Write down the point where the line y = 2x+3 crosses the y-axis.

13. Keeping c = 0, move the slider m. Describe what is special about the lines that have c=0.

14. The equation of a line is y = 5x. Write down the slope of this line.

Write down the coordinates of the point where the line y =5x crosses the y-axis.

If you've completed “Student Activity on Slope” you should try the file “Constructing a Line Quiz 2” to test what you have just learned.