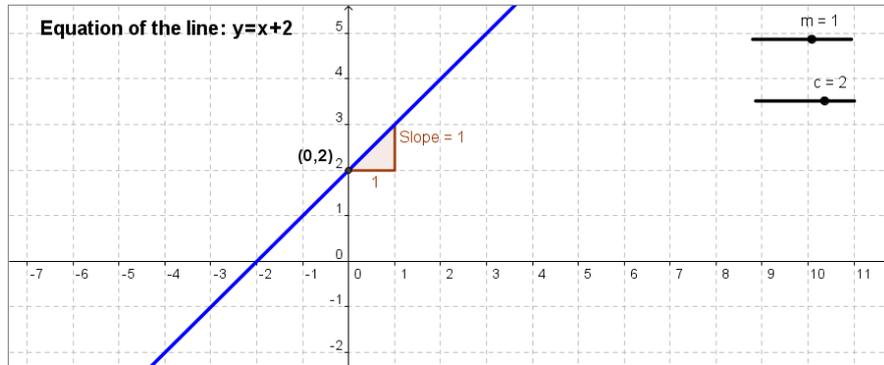


Student Activity on Equation of a Line

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.