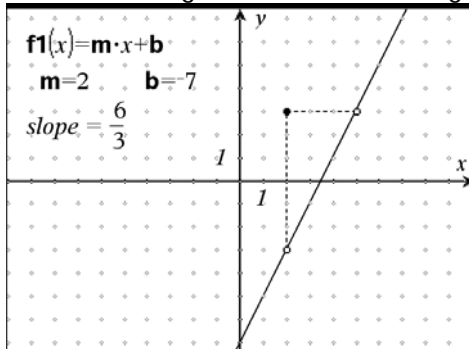


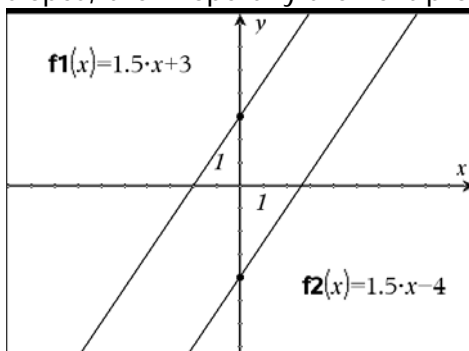
Activity with Slope: Including Study of Parallel and Perpendicular Lines

The first activity will allow the students create different lines and notice that the number representing slope is the value of the vertical rise of the line divided by the horizontal run of the line. The teacher should have the students write this relationship or draw several diagrams demonstrating their understanding of the relationship of the slope to the rise and run of the line.



The next page is a Graphs and Geometry Page. The students should enter the function $f_1(x) = x$ in the function line. The students should rotate the line by grabbing and dragging the line on one end. They should also grab and drag the middle of the line to see the y-intercept change. The students will sketch four lines demonstrating a line with positive slope and negative slope and with positive and negative y-intercepts.

The next problem has the students rotate the lines to create parallel lines and perpendicular lines. The students sketch the graphs and record the slopes. The students should notice that parallel lines have the same slope. If they don't realize that perpendicular slopes have opposite, reciprocal slopes, then hopefully the next problem will help them more.



The next problem has the students rotate perpendicular lines and the two slopes, in fraction form, are shown on the screen. Make sure to notice the slope of horizontal and vertical lines.

