Math 131 – Finding equations of lines – Review

An equation of a line is usually expressed in one of three forms:

- Slope intercept form: y=mx+b; where m is the slope and b is the y intercept
- Standard Form : Ax+By=C
- Point-Slope Form: $y-y_1=m(x-x_1)$ where m is the slope and (x_1,y_1) is a known point on the line.

Given information about a line, we are often asked to find the line's equation. This can most easily be done using point-slope form, but can also be done using slope intercept form.

For point-slope form, keep in mind, you need two pieces of information.

a point on the line, and
the slope.

Examples:

1) Find an equation of the line passing through (4,2) and (-3,7)

2) Find an equation of the line with x intercept 3 and y intercept -5.

 Find an equation of the line passing through (1,-5) and parallel to the line 2x-5y=7