Worksheet Solutions 4.7a Graphing Systems of Linear Inequalities

1. Solve 

For the first inequality, the (included) boundary line is x = 1.

Use the test point, (0,0):  Not true, so shade to the right of the boundary line.

For the second inequality, the (non-included) boundary line is y = 3.

Use the test point, (0,0): 0<3 True, so shade below the boundary line.

The solution is the doubly shaded part.

1. Solve 

For the first inequality, the (non-included) boundary line is 2x + y = -2.

Use the test point, (0,0): 2(0) + 0 > -2 True, so shade the side of the boundary line with (0,0).

For the second inequality, the (included) boundary line is x + y = 3, which is equivalent to y = -x + 3.

Use the test point, (0,0):  This is true, so include the side with (0,0).

The solution is the doubly shaded part.