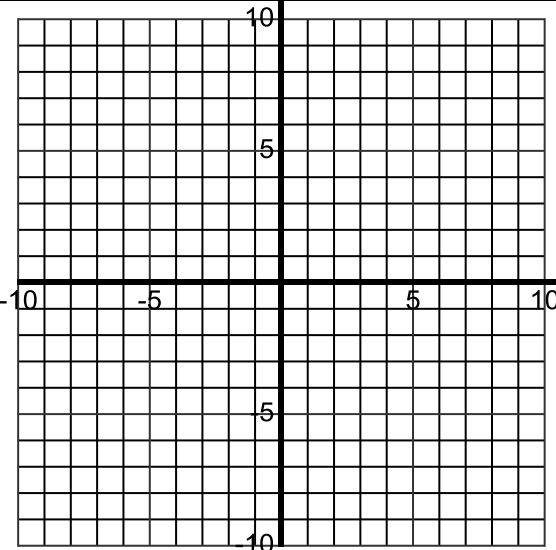
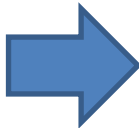
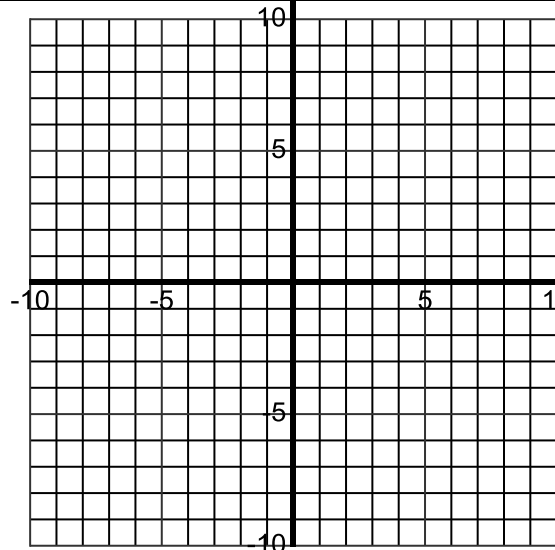


**Goal: Write the equation of a parallel or perpendicular line through a given point (graph paper provided)**

**Directions: 1) Graph YOUR line on both grids (you must plot all of the “nice” points using slope)**

**2) Plot YOUR point on both grids (use color to emphasize this point)**

**3) Plot THE PARALLEL LINE that passes through YOUR point ONLY ON THE GRID ON THE RIGHT**

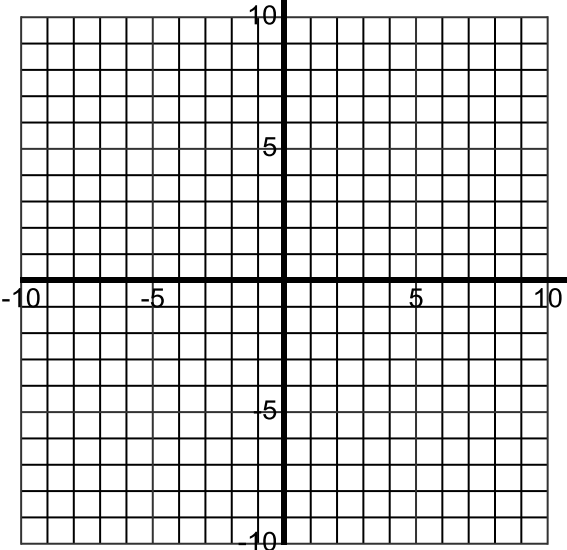
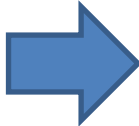
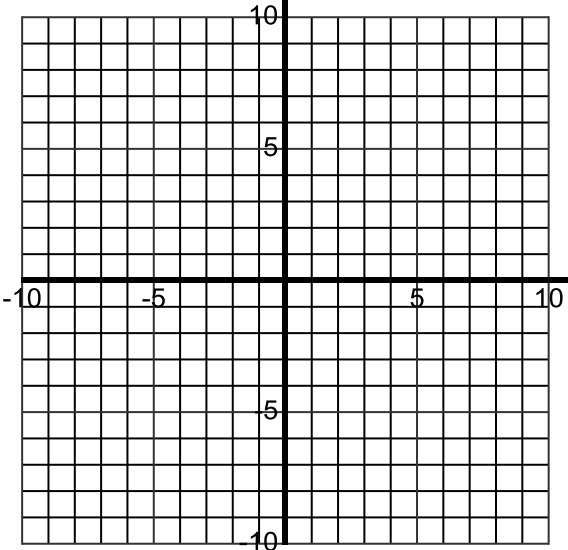
| YOUR LINE   | YOUR POINT<br>(                    ,                    )                         | THE line PARALLEL TO YOUR LINE and THROUGH YOUR POINT  |
|---|---|--|
|    |  |   |
| <p><b>4) Provide ALGEBRAIC SUPPORT for the equation of the PARALLEL line through YOUR POINT using slope intercept form of the line</b><br/><b>Note: <math>y = mx + b</math> is slope intercept form of the line</b></p> |   | <p><b>5) Provide ALGEBRAIC SUPPORT for the equation of the PARALLEL line through YOUR POINT using slope intercept form of the line using “modified” point slope form</b><br/><b>Note: <math>y = m(x - x_1) + y_1</math> is modified point slope form of the line</b></p> |

**Goal: Write the equation of a parallel or perpendicular line through a given point (graph paper provided)**

**Directions: 1) Graph YOUR line on both grids (you must plot all of the “nice” points using slope)**

**2) Plot YOUR point on both grids (use color to emphasize this point)**

**3) Plot THE PERPENDICULAR LINE that passes through YOUR point ONLY ON THE GRID ON THE RIGHT**

| YOUR LINE   | YOUR POINT<br>(                      ,                      )  | THE line <b>PERPENDICULAR</b> TO YOUR LINE and THROUGH YOUR POINT                   |
|---|--|---|
|    |   |  |
| <p><b>4) Provide ALGEBRAIC SUPPORT for the equation of the PERPENDICULAR line through YOUR POINT using slope intercept form of the line</b><br/> <b>Note: <math>y = mx + b</math> is slope intercept form of the line</b></p> | <p><b>5) Provide ALGEBRAIC SUPPORT for the equation of the PERPENDICULAR line through YOUR POINT using slope intercept form of the line using “modified” point slope form</b><br/> <b>Note: <math>y = m(x - x_1) + y_1</math> is modified point slope form of the line</b></p> |   |