## Using Cabri Jr. Investigating Parallel and Perpendicular Lines

| Open the Cabri Jr App | Cabri Juпior |  |
| :---: | :---: | :---: |
| Show the axes |  |  |
| Create a line that is not vertical or horizontal. (For simplicity, Locate one point on the $y$ axis) |  |  |
| Label the point on the axis B. |  |  |
| Find the coordinate of point B |  |  |
| Find the slope of line containing $B$ |  |  |
| Write an equation of the line in slope-intercept form |  |  |


| Add a point on the $y$ axis. Label the point B2 and find its coordinate. |  |  | $\left.\right\|_{i} ^{2}=0.9$ |
| :---: | :---: | :---: | :---: |
| Draw a line parallel to your original line that goes through B2. Find its slope. |  |  |  |
| Write an equation for the line. <br> Make a conjecture about the slopes and equations of parallel lines. |  |  |  |
| Clear your second line, point, coordinate, and slope. |  |  |  |
| Add a point on your original line. Label it $C$, and find its coordinate. |  |  |  |
| Draw the perpendicular to your line through point $C$. Find its slope. |  |  |  |
| Note to teacher: Use Navigator to collect the pairs of slopes (as L1 and L2) from all students. Make L3 the product of the slopes. Display the lists or send them back to the students. Have students make a conjecture about the slopes of perpendicular lines. |  |  |  |
| Write an equation of your perpendicular line. |  |  |  |
| Write directions on how to find the equation of a line parallel to or perpendicular to a given line that goes through a given point. |  |  |  |

