

Regardless of the value of B , if $x = 0$ then $y = \sin 0 = 0$, so the graph must pass through the origin. Because the coefficient of the function is 1, the amplitude is 1. Now different values of B will stretch or shrink the graph of sine, but in any case, the graph will have a hill just to the right of the y -axis. This is the only one of the graphs with all of these properties.