**Password**

Listed below, there are quadratic equations in standard, vertex, and factored form. You must match each equation with the correct *y*-intercept, *x*-intercepts, and vertex from the decoding sheet. (Hint: One clue should be enough to make a correct match. Look for the clue that comes most easily.)

Once you match all equations to a letter from the decoder sheet, rearrange the letters to spell a word that is commonly used in mathematics.

 

 

 

 

**Decoder Sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| **Letter** | ***y*-intercept** | ***x*-intercepts** | **vertex** |
| A | (0,–4) | (0.37,0) and (3.63,0) | (2,8) |
| B | (0,3) | (-5,0) and (-2,0) | (0.5,12.25) |
| E | (0,6) | (-0.75,0) and (-2,0) | (-3,7) |
| F | (0,8) | (-1.6,0) and (-0.25,0) | (-0.93,-9.11) |
| L | (0,3) | (-5.45,0) and (-0.55,0) | (-3,-6) |
| M | (0,10) | (-5,0) and (-2,0) | (-3.5,-2.25) |
| N | (0,-15) | (1,0) and (6,0) | (12,-4) |
| O | (0,12) | (-3,0) and (4,0) | (0.5,12.25) |
| P | (0,4) | (2,0) and (8,0) | (-3,-6) |
| R | (0,-15) | (0.78,0) and (3.23,0) | (2,9) |
| S | (0,12) | (1,0) and (6,0) | (3.5,-12.5) |
| T | (0,4.5) | (2.11,0) and (5.89,0) | (-0.93,-9.11) |
| U | (0,-6) | (-0.75,0) and (2,0) | (0.63,-7.56) |
| W | (0,12) | (-5.45,0) and (-0.55,0) | (-3,7) |

The password is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_