

**New Jersey City University**  
**Intermediate Algebra**  
**Peer-Led Team Learning Workshop 12B**  
**Quadratic Equations and Applications II**

**Section 8.5**

1) The height  $h$ , in feet, of an arrow shot straight upward can be approximated by the equation  $h = 128t - 16t^2$ , where  $t$  is the time in seconds. Does the arrow reach a height of 225 feet? Why or why not?

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2) If  $m$  and  $n$  are solutions to the equation  $x^2 + bx + c$ , what are the values of  $b$  and  $c$ ?

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3) Find the coordinates of the vertex, the y-intercept, and the x-intercepts (if any exist) of the quadratic function given by  $f(x) = 5x^2 + 2x - 3$ . If necessary, approximate the x-intercept(s) to the nearest tenth.