

Quiz #2 (CSE4190.667)

October 11, 2017 (Wednesday)

Name: _____ Dept: _____ ID No: _____

1. (10 points) Write the graph of the function $y = x^2 + 2x + 3$ as a cubic Bézier curve over the interval $[-1, 2]$.

2. (15 points) Find the control nets for the four Bézier patches after subdivisions at $u = v = 0.5$:

$$\left[\begin{array}{c} \left[\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 1 \\ 1 \\ 0 \\ 2 \\ 2 \end{array} \right] \\ \left[\begin{array}{c} 1 \\ 0 \\ 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \end{array} \right] \\ \left[\begin{array}{c} 2 \\ 0 \\ 0 \\ 2 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \end{array} \right] \\ \left[\begin{array}{c} 3 \\ 0 \\ 0 \\ 3 \\ 1 \\ 1 \\ 3 \\ 2 \\ 2 \end{array} \right] \end{array} \right]$$