

**CS 557 F09**  
**Homework #17**  
**Due Tuesday, 10 November 2009**

1. A degree three curve passes through the following points at the indicated parameter values:

$$\mathbf{P}(0) = (1, 4), \quad \mathbf{P}(1) = (3, 5), \quad \mathbf{P}(2) = (1, 0), \quad \mathbf{P}(4) = (9, 20).$$

Find  $\mathbf{P}(3)$  using Lagrange polynomials.

2. Find  $\mathbf{P}(3)$  using Newton polynomials.
3. Find  $\mathbf{P}(3)$  using Neville's scheme.