

CS 381 Computer Graphics, Fall 2012  
**Quiz 2 Solutions**

Quiz 2 was given in class on Tuesday, September 18, 2012.

1. [3 pts] Suppose we are mapping the interval  $[2, 7]$  to  $[1, 4]$ , so that 2 maps to 1 and 7 maps to 4. Given the value 3 lying in the first interval, use linear interpolation to find the corresponding value in the second interval.

As in the examples in class, we can use  $[0, 1]$  as an intermediate interval, with  $t$  denoting our value in this interval.

Then  $t = (3 - 2) / (7 - 2) = 1/5$ .

Our final value is  $1 + t(4 - 1) = 1 + (1/5) \cdot 3 = 1.6$ .

2. [2 pts] What is the OpenGL "viewport"?

The *viewport* is the area of the window that OpenGL draws in.