

1. 5 points Compute the arc length of the curve  $y = x^{3/2}$  from  $x = 1$  to  $x = 4$ .
2. 5 points Compute the arc length of the parametrically defined curve  $x(t) = t^2$ ,  $y(t) = t^3$ , from  $t = 1$  to  $t = 2$ .