

Name: \_\_\_\_\_

**Choose D for “None of these”**

19. Find the point on the parametric curve  $x = e^{3t} + 5, y = e^{2t} - 2t + 1$  which has a horizontal tangent line.
- A.  $(e^3, e^2)$
  - B.  $(6, 0)$
  - C.  $(5, e - 1)$
20. Which of these integrals gives the arclength of the curve  $y = x^2 - 3x + 4$  between  $(1, 2)$  and  $(3, 4)$ ?
- A.  $\int_1^3 \sqrt{4t^2 - 12t + 10} \, dt$
  - B.  $\int_2^4 \sqrt{2t + 3t^2} \, dt$
  - C.  $\int_0^1 (4 + 2t) \, dt$