

## Assignment Previewer

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## Previewer Tools

**HW4-Due Feb 3 2009 M281  
(526897)**[Show All](#)

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## About this Assignment

Due: **Tue Feb 3 2009 08:00 PST****1.** SCalc5 14.3.002. [295128] [Show Details](#)

Find the length of the curve.

$$\mathbf{r}(t) = (t^2, \sin t - t \cos t, \cos t + t \sin t), 0 \leq t \leq \pi$$

**2.** SCalc5 14.3.004. [295145] [Show Details](#)

Find the length of the curve.

$$\mathbf{r}(t) = t^2\mathbf{i} + 2t\mathbf{j} + \ln t\mathbf{k}, 1 \leq t \leq e$$

**3.** HW4.1-M281 [774564] [Show Details](#)

**Problem 4.1.** Penguin went for a long walk in the forest over the weekend. Her feet really hurt. Poor penguin. The path she walked is  $f(t) = (\cos(t^2), \sin(t^2))$  for  $-1 \leq t \leq 2$ . Find the distance Penguin walked.



She walked a distance of

4. HW4.2-M281 [774566] [Show Details](#)

**Problem 4.2.** Puffin was flying above the forest watching Penguin hike. Her path was along the helix  $g(t) = (\cos(3t), \sin(3t), 4t)$  and she flew for  $0 \leq t \leq 2\pi$ . Find the distance Puffin flew.



She flew a distance of

5. HW4.3-M281 [840663] [Show Details](#)

**Problem 4.3.** Seagull swims on the surface of the sea along the path  $\gamma(t) = (t, \frac{2}{3}t^{3/2})$  for  $0 \leq t \leq 3$ . Find the distance she travelled.



Questions  
by  
Puffini  
Enterprises  
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She swam a distance of

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