Can You Go the Distance? (Lecture Assignment)

Complete this assignment and submit it to Gradescope by 4:00pm on your class day. You can print this sheet, or write on your own paper. Contact us if internet connections or other issues require alternate arrangements.

1. Compute $\displaystyle\int_1^4 x - \frac{1}{x}\, dx$.

2. An abandoned disposable mask[1] floats through the Mississippi River. The velocity of the mask at time t is given by $v(t) = t^2 + 2t - 3$.

   (a) Find the *net distance* traveled by the mask from $t = 0$ to $t = 3$.

   (b) Find the *total distance* traveled by the mask from $t = 0$ to $t = 3$

One-Minute Questions: Write a sentence for each.

   A. What's one mathematical question you have after watching the videos?

   B. What's one interesting thing you learned from the book or videos?

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[1]Please note that we are not condoning throwing used masks anywhere but the trashcan! ☺