

# Homework #8

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## Problem 1

A 0.315-kg particle moves from an initial position  $\vec{r}_1 = 2.00\hat{i} - 1.00\hat{j} + 3.00\hat{k}$  m to a final position  $\vec{r}_2 = 4.00\hat{i} - 3.00\hat{j} - 1.00\hat{k}$  m while a force  $\vec{F} = 2.00\hat{i} - 3.00\hat{j} + 1.00\hat{k}$  N acts on it. What is the work done by the force on the particle?

## Solution