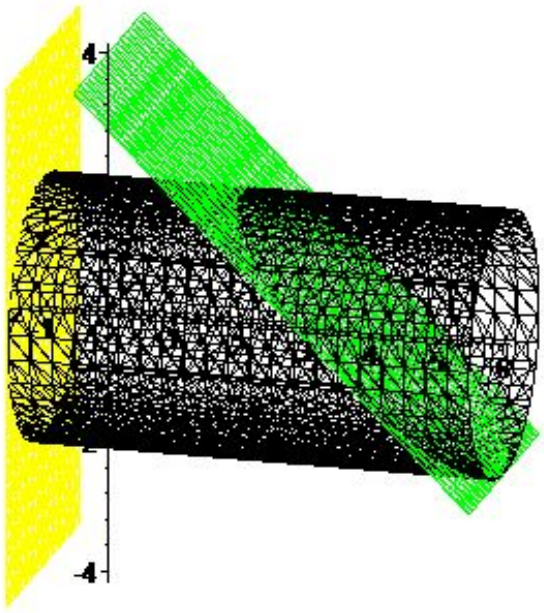
MATH 261 Quiz 8 Name: .
Spring 15

Show all work. 5 points each. Be sure to draw the regions D and perform the integrations by hand. You may use Maple, Wolfram Alpha, ... to check your answers.

1. A lamp has two bulbs of a type with an average lifetime of 1000 hours. Assuming that we can model the probability of failure of these bulbs by an exponential density function with mean , find the probability that both of the lamps bulbs fail within 900 hours.

2. Find the volume of the solid enclosed by the cylinder $x^2 + z^2 = 4$, $y = -1$ and $y + z = 4$.(see back for figure)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