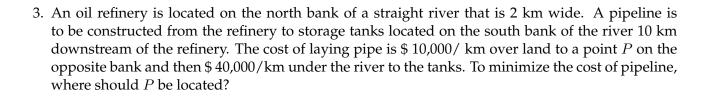
SECTION 4.7 APPLIED OPTIMIZATION (DAY 2)

1. A rectangular storage container with lid is to have a volume of 36 cubic inches. The length of the base is three times the width. Material for the base and lid costs \$4 per square inch. Material for the sides costs \$1 per square inch. Find the cost of materials for the least expensive container.





4.	A right circular cylinder is inscribed in a sphere of radius 9. Find the dimensions of the cylinde with largest possible volume.