

3. [6 points] The edge of a cube was found to be 5 meters with a possible error in measurement of 0.1 meter. Use differentials to estimate the maximum possible error in computing the surface area of the cube. Include units with your answer.

4. [9 points] The altitude (height, h) of a triangle is increasing at a rate of 3 cm/sec while the area of the triangle is decreasing at a rate of 1 cm²/sec. At what rate is the base, b , of the triangle changing with the altitude is 20 cm and the area is 100 cm²? Include units with your answer.

