

CVG 2171 – Surveying and Measurements
Assignment # 1 – Units and Significant Figures

SOLUTIONS

2.4 Convert the following distances given in meters to U.S. survey feet:

(a)* 4129.57 m **13,548.44 sft**

(b) 686.504 m **2252.30 sft**

(c) 5684.237 m **18,649.03 sft**

2.5 Convert the following distances given in survey feet to meters:

(a)* 537.52 sft **163.836 m**

(b) 504,864.39 sft **153,882.97 m or 153,882.974 m**

(c) 3874.26 sft **1180.88 m or 1180.877 m**

2.7 Express 48,983 sft² in:

(a)* acres **1.1245 ac**

(b) hectares **0.44151 ha**

(c) square Gunter's chains **11.245 sq. ch.**

2.10 What is the area in acres of a rectangular parcel of land measured with a Gunter's chain if the recorded sides are as follows:

(a)* 9.17 ch and 10.64 ch **9.76 ac**

(b) 30 ch 6 lk and 24 ch 98 lk **75.09 ac**

2.16 Convert the angles of a triangle to radians and show a computational check:

(a)* $39^{\circ}41'54''$, $91^{\circ}30'16''$, and $48^{\circ}47'50''$ **0.692867, 1.59705, and 0.851672**

0.6928666 + 1.597054 + 0.8516721 = 3.14059 check

(b) $82^{\circ}17'43''$, $29^{\circ}05'54''$, and $68^{\circ}36'23''$ **1.43632, 0.507862, and 1.19741**

1.436324 + 0.5078617 + 1.197407 = 3.14159 check