

PREAP PRECALCULUS  
SECTION 4.7: LOC/LOS

NAME \_\_\_\_\_

Solve each triangle. Show all work on own paper. Round to the thousandths place.

1.  $a = 184$        $A = 38^\circ$        $B = 81^\circ$        $C = 61^\circ$        $b = 295.186$        $c = 261.394$
2.  $b = 15.9$        $A = 19^\circ 15'$        $C = 47^\circ 30'$        $B = 113^\circ 15'$        $a = 5.705$        $c = 12.759$
3.  $b = 45$        $A = 51^\circ$        $B = 38^\circ$        $a = 56.803$        $C = 91^\circ$        $c = 73.081$
4.  $a = 55$        $b = 82$        $c = 51$        $A = 41.129^\circ$ ,  $B = 101.287^\circ$ ,  $C = 37.584^\circ$
5.  $A = 37.6^\circ$        $c = 95$        $b = 115$        $a = 70.274$ ,  $B = 86.829^\circ$        $c = 55.571^\circ$
6.  $A = 51^\circ$        $B = 36^\circ$        $a = 65$        $C = 93^\circ$ ,  $b = 49.162$ ,  $c = 83.525$
7.  $b = 72$        $c = 67$        $a = 103$        $A = 95.567^\circ$        $B = 44.086^\circ$ ,  $C = 40.347^\circ$
8.  $a = 45$        $b = 21$        $c = 98$       no  $\Delta$  exists
9.  $A = 35^\circ$        $B = 65^\circ$        $c = 19$        $a = 11.066$ ,  $C = 80^\circ$ ,  $b = 17.485$
10.  $C = 127^\circ$        $a = 53$        $b = 12$        $c = 60.980$ ,  $A = 43.958^\circ$ ,  $B = 9.042^\circ$

Find the area of the triangle to the nearest thousandths.

11.  $a = 25$        $c = 12$        $B = 50^\circ$       114.907
12.  $a = 13$        $b = 14$        $c = 15$       84.000
13.  $A = 50^\circ$        $B = 30^\circ$        $c = 20$       77.786
14.  $b = 16$        $c = 8$        $B = 100^\circ$       49.385
15.  $b = 8$        $B = 16^\circ 40'$        $C = 145^\circ$       20.130
16.  $a = 13$        $b = 15$        $c = 4$       24.000
17.  $A = 145^\circ$        $a = 15$        $b = 10$       16.257
18.  $D = 27.4^\circ$        $E = 34.6^\circ$        $f = 15.7$       36.476