

LAW OF SINES

TEXT: 8.1

LAST NAME	FIRST NAME	DATE
-----------	------------	------

ROUND YOUR ANSWERS TO NO FEWER THAN 3 SIGNIFICANT DIGITS.

1 (3 points). Solve the triangle with $A = 79^\circ$, $B = 83^\circ$, $a = 9$ cm.

$C =$

$b =$

$c =$

2 (5 points). For each given set of values, make a sketch and find how many different triangles can satisfy it. **Do NOT solve the triangle.**

(a) $C = \pi/3$, $a = 2\sqrt{2}$, $c = \sqrt{6}$

(b) $A = 20^\circ$, $b = 45$, $a = 15$

(c) $B = 34^\circ$, $b = 2$, $c = 3$

(d) $A = 5\pi/7$, $c = 8$, $a = 20$

(e) $C = 71^\circ$, $b = 6$, $c = 6$

3 (3 points). Solve the triangle with $A = 47^\circ$, $c = 20$ m, $a = 16$ m.

$$B_1 =$$

$$C_1 =$$

$$b_1 =$$

$$B_2 =$$

$$C_2 =$$

$$b_2 =$$

4 (3 points). Solve the triangle with $A = 52^\circ$, $C = 77^\circ$, $b = 10$ in.

$B =$

$a =$

$c =$