

For each problem, three parts of a triangle are given. Find the remaining parts of the triangle using dimensions accurate to the nearest tenth. In the case of SSA, check for no, one, or two solutions (create a second table for two triangles, if needed).

1. **AAS (start with  $\angle C$ , then Law of Sines)**

$\angle A$	$\angle B$	$\angle C$	a	b	c
$36^\circ$	$48^\circ$	$96^\circ$	8	10.1	13.5

2. **SSA (start with Law of Sines... check the ambiguous case using  $\angle C$ )**

$\angle A$	$\angle B$	$\angle C$	a	b	c
$131.4^\circ$	$26.3^\circ$	$22.3^\circ$	11.9	7	6

3. **SSS (start with Law of Cosines... find  $\angle A$  first)**

$\angle A$	$\angle B$	$\angle C$	a	b	c
$95.7^\circ$	$50.7^\circ$	$33.6^\circ$	9	7	5

4. **ASA (start with  $\angle A$ , then Law of Sines)**

$\angle A$	$\angle B$	$\angle C$	a	b	c
$101^\circ$	$62^\circ$	$17^\circ$	11	9.9	3.3

5. **SSA (start with Law of Sines... check the ambiguous case using  $\angle B$ )**

$\angle A$	$\angle B$	$\angle C$	a	b	c
$30^\circ$	$36.9^\circ$	$113.1^\circ$	10	12	18.4
	$143.1^\circ$	$6.9^\circ$			2.4

6. **SAS (start with Law of Cosines... find c, then  $\angle B$ )**

$\angle A$	$\angle B$	$\angle C$	a	b	c
$144.8^\circ$	$15.2^\circ$	$20^\circ$	11	5	6.5

7. **SSS (start with Law of Cosines... find  $\angle A$  first)**

$\angle A$	$\angle B$	$\angle C$	a	b	c
$90^\circ$	$16.3^\circ$	$73.7^\circ$	50	14	48