

Law of Sines - Ambiguous Case

Date _____

Find each measurement indicated. Round your answers to the nearest tenth.

1) $m\angle A = 28^\circ$, $c = 34$, $a = 32$
Find b

2) $m\angle B = 23^\circ$, $a = 30$, $b = 25$
Find c

3) $m\angle C = 9^\circ$, $m\angle A = 151^\circ$, $b = 24$
Find a

4) $m\angle C = 48^\circ$, $b = 32$, $c = 31$
Find a

5) $m\angle C = 17^\circ$, $m\angle A = 15^\circ$, $c = 27$
Find a

6) $m\angle A = 41^\circ$, $c = 32$, $a = 31$
Find b

7) $m\angle C = 83^\circ$, $b = 32$, $c = 33$
Find $m\angle B$

8) $m\angle A = 49^\circ$, $c = 30$, $a = 23$
Find $m\angle B$

9) $m\angle B = 123^\circ$, $a = 21$, $b = 45$
Find $m\angle A$

10) $m\angle A = 20^\circ$, $c = 20$, $a = 15$
Find $m\angle B$

11) $m\angle C = 51^\circ$, $b = 33$, $c = 28$
Find $m\angle A$

12) $m\angle C = 109^\circ$, $b = 14$, $c = 22$
Find $m\angle B$

Answers to Law of Sines - Ambiguous Case (ID: 1)

1) 57.7 or 2.3

4) 41.3 or 1.5

7) 74.3°

10) 132.9° or 7.1°

2) 49.7 or 5.6

5) 23.9

8) 51.1° or 30.9°

11) 62.7° or 15.3°

3) 34

6) 47 or 1.3

9) 23°

12) 37°

Law of Sines - Ambiguous Case

Date _____

Find each measurement indicated. Round your answers to the nearest tenth.

1) $m\angle C = 34^\circ$, $b = 31$, $c = 4$
Find a

2) $m\angle C = 130^\circ$, $m\angle A = 10^\circ$, $c = 31$
Find a

3) $m\angle A = 84^\circ$, $m\angle C = 72^\circ$, $c = 21$
Find a

4) $m\angle C = 61^\circ$, $m\angle A = 12^\circ$, $b = 23$
Find a

5) $m\angle A = 128^\circ$, $m\angle B = 45^\circ$, $c = 6$
Find b

6) $m\angle B = 89^\circ$, $m\angle A = 52^\circ$, $c = 12$
Find b

7) $m\angle B = 145^\circ$, $a = 17$, $b = 24$
Find $m\angle A$

8) $m\angle C = 69^\circ$, $b = 7$, $c = 15$
Find $m\angle B$

9) $m\angle B = 48^\circ$, $a = 25$, $b = 21$
Find $m\angle C$

10) $m\angle A = 109^\circ$, $a = 22$, $c = 13$
Find $m\angle C$

11) $m\angle B = 31^\circ$, $a = 31$, $b = 8$
Find $m\angle C$

12) $m\angle B = 83^\circ$, $a = 26$, $b = 41$
Find $m\angle A$

Answers to Law of Sines - Ambiguous Case (ID: 2)

1) Not a triangle

4) 5

7) 24°

10) 34°

2) 7

5) 34.8

8) 25.8°

11) Not a triangle

3) 22

6) 19.1

9) 69.8° or 14.2°

12) 39°