

Law of Sines WS #3

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

1) $m\angle A = 154^\circ$, $m\angle B = 14^\circ$, $c = 18$ in
Find b

2) $m\angle A = 104^\circ$, $m\angle B = 20^\circ$, $a = 34$ cm
Find b

3) $m\angle C = 59^\circ$, $c = 20$, $b = 15$
Find $m\angle B$

4) $m\angle A = 91^\circ$, $c = 28$, $a = 33$
Find $m\angle C$

Solve each triangle. Round your answers to the nearest tenth.

5) $m\angle A = 26^\circ$, $c = 8$, $a = 6$

6) $m\angle C = 132^\circ$, $b = 34$, $c = 19$

7) $m\angle A = 84^\circ$, $m\angle C = 75^\circ$, $b = 13$

8) $m\angle A = 67^\circ$, $c = 10$, $a = 7$

9) $m\angle A = 28^\circ$, $m\angle B = 25^\circ$, $a = 10$

10) $m\angle C = 158^\circ, m\angle A = 10^\circ, b = 31$

11) $m\angle A = 68^\circ, m\angle B = 11^\circ, c = 36$

12) $m\angle C = 24^\circ, b = 31, c = 29$

13) $m\angle B = 22^\circ, m\angle C = 118^\circ, a = 24$

14) $m\angle C = 61^\circ$, $m\angle B = 108^\circ$, $b = 25$

15) $m\angle A = 82^\circ$, $c = 30$, $a = 23$

16) $m\angle A = 27^\circ$, $c = 27$, $a = 23$

Answers to Law of Sines WS #3 (ID: 1)

- 1) 20.9 in 2) 12 cm 3) 40° 4) 58°
5) $m\angle B = 118.2^\circ, m\angle C = 35.8^\circ, b = 12.1$ 6) Not a triangle
 Or $m\angle B = 9.8^\circ, m\angle C = 144.2^\circ, b = 2.3$
7) $m\angle B = 21^\circ, c = 35, a = 36.1$ 8) Not a triangle 9) $m\angle C = 127^\circ, c = 17, b = 9$
10) $m\angle B = 12^\circ, c = 55.9, a = 25.9$ 11) $m\angle C = 101^\circ, b = 7, a = 34$
12) $m\angle A = 130.2^\circ, m\angle B = 25.8^\circ, a = 54.5$ 13) $m\angle A = 40^\circ, c = 33, b = 14$
 Or $m\angle A = 1.8^\circ, m\angle B = 154.2^\circ, a = 2.2$
14) $m\angle A = 11^\circ, c = 23, a = 5$ 15) Not a triangle
16) $m\angle B = 120.8^\circ, m\angle C = 32.2^\circ, b = 43.5$
 Or $m\angle B = 5.2^\circ, m\angle C = 147.8^\circ, b = 4.6$