

Law of Sines Sides and Angles (LAWSINESSIDEANGLE1)

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

1) $m\angle B = 27^\circ$, $m\angle A = 15^\circ$, $a = 12$ mi
Find b

2) $m\angle C = 108^\circ$, $m\angle A = 11^\circ$, $b = 23$ m
Find a

3) $m\angle C = 136^\circ$, $m\angle B = 31^\circ$, $a = 10$ yd
Find c

4) $m\angle A = 28^\circ$, $m\angle C = 92^\circ$, $b = 13$ ft
Find a

5) $m\angle C = 42^\circ$, $m\angle A = 17^\circ$, $b = 41$ m
Find a

6) $m\angle C = 54^\circ$, $m\angle A = 115^\circ$, $b = 4$ m
Find a

7) $m\angle A = 20^\circ$, $m\angle B = 22^\circ$, $c = 43$ m
Find b

8) $m\angle A = 123^\circ$, $m\angle C = 34^\circ$, $c = 30$ mi
Find a

9) $m\angle A = 75^\circ$, $m\angle B = 41^\circ$, $c = 26$ ft
Find b

10) $m\angle B = 70^\circ$, $m\angle C = 12^\circ$, $a = 19$ yd
Find c

11) $m\angle B = 75^\circ$, $m\angle A = 64^\circ$, $c = 19$ in
Find b

12) $m\angle A = 80^\circ$, $m\angle B = 54^\circ$, $a = 11$ km
Find b

13) $m\angle C = 97^\circ$, $m\angle B = 62^\circ$, $b = 32$ km
Find c

14) $m\angle C = 46^\circ$, $m\angle A = 65^\circ$, $c = 27$ mi
Find a

15) $m\angle C = 109^\circ$, $m\angle A = 37^\circ$, $b = 26$ in
Find a

16) $m\angle A = 61^\circ$, $m\angle C = 107^\circ$, $c = 23$ yd
Find a

17) $m\angle B = 88^\circ$, $m\angle C = 25^\circ$, $b = 26$ m
Find c

18) $m\angle C = 127^\circ$, $m\angle A = 28^\circ$, $c = 51$ in
Find a

19) $m\angle A = 99^\circ$, $m\angle B = 12^\circ$, $c = 18$ in
Find b

20) $m\angle A = 101^\circ$, $m\angle B = 42^\circ$, $c = 27$ km
Find b

21) $m\angle B = 96^\circ$, $b = 24$ km, $a = 5$ km
Find $m\angle A$

22) $m\angle B = 107^\circ$, $a = 15$ m, $b = 40$ m
Find $m\angle A$

23) $m\angle A = 68^\circ$, $a = 27$ cm, $c = 8$ cm
Find $m\angle C$

24) $m\angle C = 141^\circ$, $b = 11$ yd, $c = 17$ yd
Find $m\angle B$

25) $m\angle A = 151^\circ$, $c = 11$ m, $a = 34$ m
Find $m\angle C$

26) $m\angle C = 140^\circ$, $b = 5$ ft, $c = 37$ ft
Find $m\angle B$

27) $m\angle B = 118^\circ$, $b = 30$ km, $a = 17$ km
Find $m\angle A$

28) $m\angle A = 145^\circ$, $a = 33$ yd, $c = 7$ yd
Find $m\angle C$

29) $m\angle C = 125^\circ$, $b = 10$ km, $c = 28$ km
Find $m\angle B$

30) $m\angle A = 111^\circ$, $c = 7$ cm, $a = 10$ cm
Find $m\angle C$

31) $m\angle A = 89^\circ$, $c = 7$ km, $a = 8$ km
Find $m\angle C$

32) $m\angle A = 115^\circ$, $c = 21$ m, $a = 29$ m
Find $m\angle C$

33) $m\angle A = 35^\circ$, $c = 8$ cm, $a = 19$ cm
Find $m\angle C$

34) $m\angle A = 75^\circ$, $c = 7$ yd, $a = 28$ yd
Find $m\angle C$

35) $m\angle A = 61^\circ$, $c = 21$ m, $a = 23$ m
Find $m\angle C$

36) $m\angle C = 77^\circ$, $b = 29$ ft, $c = 38$ ft
Find $m\angle B$

37) $m\angle B = 42^\circ$, $b = 29$ mi, $a = 21$ mi
Find $m\angle A$

38) $m\angle A = 91^\circ$, $c = 17$ mi, $a = 33$ mi
Find $m\angle C$

39) $m\angle B = 98^\circ$, $b = 19$ ft, $a = 11$ ft
Find $m\angle A$

40) $m\angle A = 79^\circ$, $c = 23$ in, $a = 32$ in
Find $m\angle C$

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

41) $m\angle C = 113^\circ$, $m\angle A = 53^\circ$, $c = 38$ km

42) $m\angle A = 151^\circ$, $c = 13$ mi, $a = 33$ mi

43) $m\angle B = 59^\circ$, $m\angle A = 38^\circ$, $a = 18$ in

44) $m\angle A = 66^\circ$, $m\angle B = 83^\circ$, $c = 13$ cm

45) $m\angle B = 34^\circ$, $m\angle C = 23^\circ$, $a = 45$ in

46) $m\angle A = 64^\circ$, $m\angle C = 13^\circ$, $c = 6$ in

47) $m\angle B = 46^\circ$, $m\angle C = 118^\circ$, $a = 5$ yd

48) $m\angle A = 121^\circ$, $m\angle C = 42^\circ$, $c = 32$ cm

49) $m\angle B = 30^\circ$, $m\angle C = 15^\circ$, $a = 41$ cm

50) $m\angle C = 94^\circ$, $m\angle A = 20^\circ$, $c = 35$ km

51) $m\angle B = 66^\circ$, $a = 13$ in, $b = 23$ in

52) $m\angle A = 14^\circ$, $m\angle B = 12^\circ$, $c = 38$ mi

53) $m\angle B = 117^\circ$, $a = 27$ ft, $b = 53$ ft

54) $m\angle A = 28^\circ$, $m\angle C = 13^\circ$, $c = 12$ mi

55) $m\angle B = 104^\circ$, $m\angle C = 39^\circ$, $a = 23$ yd

56) $m\angle B = 116^\circ$, $m\angle A = 24^\circ$, $c = 30$ in

57) $m\angle C = 12^\circ$, $m\angle A = 36^\circ$, $b = 43$ mi

58) $m\angle A = 153^\circ$, $m\angle B = 16^\circ$, $c = 16$ m

59) $m\angle C = 89^\circ$, $m\angle A = 61^\circ$, $b = 16$ m

60) $m\angle B = 55^\circ$, $m\angle A = 9^\circ$, $c = 23$ in

Answers to Law of Sines Sides and Angles (LAWSINESSIDEANGLE1)

- | | | | |
|---|------------------|---|------------------|
| 1) 21 mi | 2) 5 m | 3) 30.9 yd | 4) 7 ft |
| 5) 14 m | 6) 19 m | 7) 24.1 m | 8) 45 mi |
| 9) 19 ft | 10) 4 yd | 11) 28 in | 12) 9 km |
| 13) 36 km | 14) 34 mi | 15) 28 in | 16) 21 yd |
| 17) 11 m | 18) 30 in | 19) 4 in | 20) 30 km |
| 21) 12° | 22) 21° | 23) 15.9° | 24) 24° |
| 25) 9° | 26) 5° | 27) 30° | 28) 7° |
| 29) 17° | 30) 40.8° | 31) 61° | 32) 41° |
| 33) 14° | 34) 14° | 35) 53° | 36) 48° |
| 37) 29° | 38) 31° | 39) 35° | 40) 44.9° |
| 41) $m\angle B = 14^\circ$, $b = 10$ km, $a = 33$ km | | 42) $m\angle B = 18^\circ$, $m\angle C = 11^\circ$, $b = 21$ mi | |
| 43) $m\angle C = 83^\circ$, $b = 25.1$ in, $c = 29$ in | | 44) $m\angle C = 31^\circ$, $b = 25.1$ cm, $a = 23.1$ cm | |
| 45) $m\angle A = 123^\circ$, $c = 21$ in, $b = 30$ in | | 46) $m\angle B = 103^\circ$, $a = 24$ in, $b = 26$ in | |
| 47) $m\angle A = 16^\circ$, $b = 13$ yd, $c = 16$ yd | | 48) $m\angle B = 17^\circ$, $a = 41$ cm, $b = 14$ cm | |
| 49) $m\angle A = 135^\circ$, $c = 15$ cm, $b = 29$ cm | | 50) $m\angle B = 66^\circ$, $b = 32.1$ km, $a = 12$ km | |
| 51) $m\angle A = 31.1^\circ$, $m\angle C = 82.9^\circ$, $c = 25$ in | | 52) $m\angle C = 154^\circ$, $b = 18$ mi, $a = 21$ mi | |
| 53) $m\angle C = 36^\circ$, $m\angle A = 27^\circ$, $c = 35$ ft | | 54) $m\angle B = 139^\circ$, $a = 25$ mi, $b = 35$ mi | |
| 55) $m\angle A = 37^\circ$, $b = 37.1$ yd, $c = 24.1$ yd | | 56) $m\angle C = 40^\circ$, $a = 19$ in, $b = 41.9$ in | |
| 57) $m\angle B = 132^\circ$, $a = 34$ mi, $c = 12$ mi | | 58) $m\angle C = 11^\circ$, $a = 38.1$ m, $b = 23.1$ m | |
| 59) $m\angle B = 30^\circ$, $a = 28$ m, $c = 32$ m | | 60) $m\angle C = 116^\circ$, $a = 4$ in, $b = 21$ in | |