

Law of Sines – Homework

Solve triangle ABC.

1. $A = 60^\circ, B = 40^\circ, c = 5$
2. $B = 75^\circ, C = 50^\circ, a = 14$
3. $b = 6, A = 35^\circ, B = 45^\circ$
4. $c = 8, B = 50^\circ, C = 40^\circ$
5. $c = 12, b = 8, C = 65^\circ$
6. $b = 12, a = 16, B = 50^\circ$
7. $A = 40^\circ, a = 5, b = 12$

8. A triangular pane in a stained glass window has two angles of 35° and 85° . If the side between these angles is 75 cm, what are the lengths of the other two sides?
9. A roller coaster has a hill that goes up at a 70° angle with the ground. It gets to the top and turns 30° before dropping 418 feet. What is the length of the upward climb?

Law of Cosines – Home Work

Solve triangle ABC.

10. $a = 4, b = 5, c = 8$
11. $a = 4, b = 10, c = 13$
12. $a = 11, b = 8, c = 6$
13. $A = 85^\circ, b = 3, c = 7$
14. $B = 70^\circ, a = 6, c = 12$
15. $C = 25^\circ, a = 14, b = 19$

16. The airline distance from Rome, Italy to Paris, France is 697 miles. The distance from Paris to Berlin, Germany is 545 miles and the distance from Berlin to Rome is 734 miles. What is the angle formed from Berlin to Paris to Rome?
17. A student takes his 2 dogs for a walk. He lets them off their leash in a field where Edison runs at 10 m/s and Einstein runs at 8 m/s. The student determines the angle between the dogs is 25° , how far are the dogs from each other in 5 seconds?
18. A golfer hits a ball 15° to the right of straight towards the hole. If the length of his shot is 89 yards, and the length from the tee to the hole is 160 yards, how far is the golfer's ball from the tee?