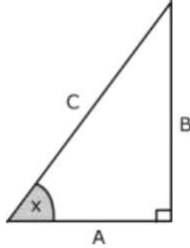


Name: _____ Block: _____

Trigonometry Review

Each of the following problems on this page is based on the right triangle below, with sides A , B , and C , and angle x between A and C .

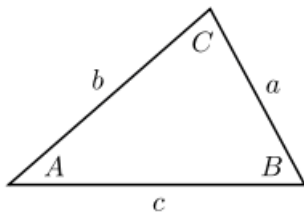


Note that the drawing is not to scale, and that angle x and the lengths of A , B and C will be different for each problem.

Some problems may also require use of the fact that the angles of a triangle add up to 180° .

1. If $A = 5$ and $C = 13$, what is B ?
2. If $A = 5$ and $C = 13$, what is $\sin x$?
3. If $C = 20$ and $x = 50^\circ$, what are A and B ?
4. If $A = 100$ and $C = 150$, what is x ?
5. If $B = 100$ and $C = 150$, what is x ?
6. You are a golfer, and your ball is in a sand trap with a hill next to it. You need to hit your ball so that it goes over the hill to the green. If your ball is 10. m away from the side of the hill (A), and the hill is 2.5 m high (B), what is the minimum angle above the horizontal that you need to hit the ball in order to get it over the hill?
7. If a force of 80 N is applied in the direction of C , and x is 40° , how much of the force is applied in the horizontal direction (A)?

Each of the problems on this page is based on the triangle below, with sides a , b and c , and angles A , B and C . Assume that the triangle is *not* a right triangle.



Each of these problems requires use of the law of sines and/or the law of cosines. Note that the drawing is not to scale, and that sides a , b and c and angles A , B and C will be different for each problem.

Some problems may also require use of the fact that the angles of a triangle add up to 180° .

8. If $a = 5$, $c = 8$, and $A = 35^\circ$ what is C ?

66.6°

9. If $a = 7$, $A = 27^\circ$, and $B = 58^\circ$, what is b ?

13.1

10. If $A = 25^\circ$, $B = 75^\circ$, and $c = 80$ what are a and b ?

$a = 34.3$

$b = 78.5$

11. If $C = 75^\circ$, $b = 13$, and $a = 10$ what is c ?

14.2

12. If $A = 30^\circ$, $b = 22$, and $c = 24$ what is a ?

12.1

13. If $C = 83^\circ$, $b = 13$, and $c = 15$ what is a ?

9.2

14. If $B = 55^\circ$, $b = 20$, and $c = 22$ what is a ?

21.3