

Name: _____

Period: _____ Date: _____

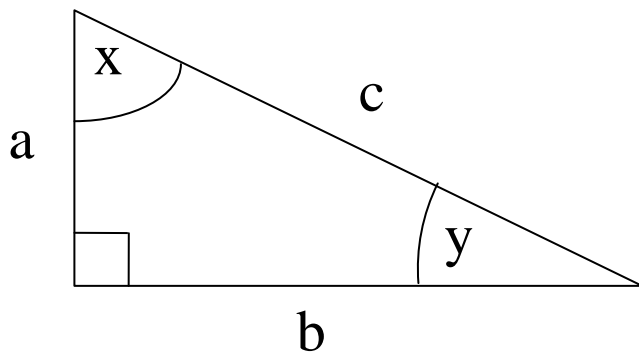
TRIGONOMETRY FOR VECTORS WORKSHEET

1. What is the cosine of 87° ?

2. What is the arctangent (\tan^{-1}) of 1.276?

3. What is the sine of 43° ?

4. What is the inverse cosine (\cos^{-1}) of 0.4862?



Use the above diagram for all of the following problems. The triangle will not be proportional for all problems, but representative.

5. If $\angle y = 18^\circ$, what is $\angle x$?

6. If $\angle x = 68^\circ$, what is $\angle y$?

7. If side a is 6in and side b is 8 in, how long is side c?

8. If side a is 3cm and c is 9cm, how long is side b?

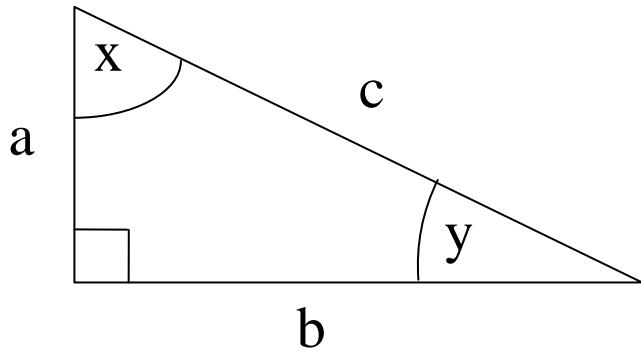
9. If side b is 13 km and c is 29km, how long is side a?

10. If side a is 13 km and c is 29km, what is $\angle y$?

11. If side b is 4ft and c is 5ft, what is $\angle y$?

12. If side a is 129mm and b is 236mm, what is $\angle y$?

13. If side a is 19 km and c is 29km, what is $\angle x$?



14. If side b is 6ft and c is 8ft, what is $\angle x$?

15. If side a is 326mm and b is 896mm, what is $\angle x$?

16. $\angle x = 67^\circ$ and the hypotenuse is 32 in.

a. How long is side b ?

b. How long is side a ?

17. $\angle y = 17^\circ$ and the hypotenuse is 24 in.

a. How long is side a ?

b. How long is side b ?

18. $\angle x = 56^\circ$ and side b is 14m.

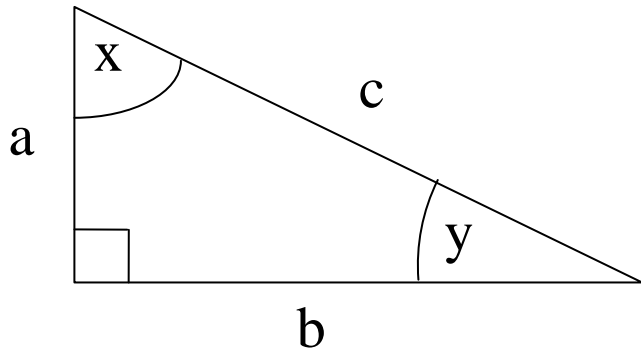
a. How long is the hypotenuse?

b. How long is side a ?

19. $\angle y = 16^\circ$ and side b is 34m.

a. How long is the hypotenuse?

b. How long is side a ?



20. If $a=22ly$ and $b=38ly$,

a. How long is the hypotenuse?

b. What is $\angle x$?

c. What is $\angle y$?

21. If $a=98nm$ and $\angle y = 27^\circ$,

a. What is $\angle x$?

b. How long is the hypotenuse?

c. What is side b ?

22. If the hypotenuse is $56yds$ and $\angle x = 76^\circ$,

a. What is $\angle y$?

b. How long is side b ?

c. How long is side a ?

23. If $\angle x = 55^\circ$ and $\angle y = 25^\circ$, can you find the lengths of the three sides? Why or why not?
