

Precalculus
Triangle Trigonometry WS #2

Name _____ Period _____

Calculate the trigonometric ratios specified. Make sure that your calculator is in degree mode. Round to four decimal places.

1. Find $\sin 32^\circ$.

7. Find $\csc 32^\circ$.

2. Find $\cos 27^\circ$.

8. Find $\sec 27^\circ$.

3. Find $\tan 61^\circ$.

9. Find $\cot 61^\circ$.

4. Find $\sin 14.9^\circ$.

10. Find $\csc 14.9^\circ$.

5. Find $\cos 38.5^\circ$.

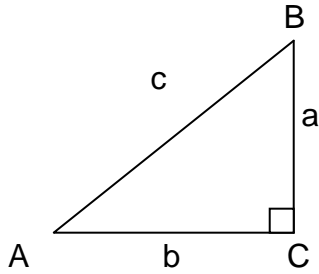
11. Find $\sec 38.5^\circ$.

6. Find $\tan 78.4^\circ$.

12. Find $\cot 78.4^\circ$.

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Draw the triangle and label information given for each problem. (Assume standard naming convention. Solve for each stated side or angle measure. Show all work including formulas. Specify units. Round to four decimal places.



13. In $\triangle ABC$, $m\angle A = 41^\circ$ and $b = 7.44$.
a) Find a .

b) Find c .

14. In $\triangle ABC$, $m\angle B = 42.17^\circ$ and $a = 8$.
a) Find b .

b) Find c .

15. In $\triangle ABC$, $b = 22$ and $c = 58$.
a) Find a .

b) Find $m\angle B$.

16. In $\triangle ABC$, $a = 21$ and $c = 30$.
a) Find $m\angle A$.

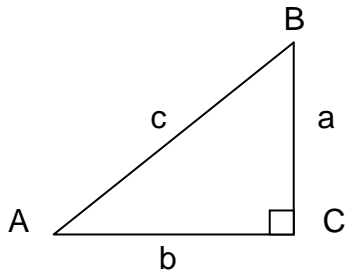
b) Find b .

17. In $\triangle ABC$, $c = 9.9$ and $m\angle B = 48^\circ$.
a) Find a .

b) Find b .

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Draw the triangle and label information given for each problem. (Assume standard naming convention. Solve for each stated side or angle measure. Show all work including formulas. Specify units. Round to the nearest hundredth.



18. In $\triangle ABC$, $a = 31.2$ and $c = 42.4$.
a) Find $m\angle A$.

b) Find b .

19. In $\triangle ABC$, $m\angle A = 37.25^\circ$ and $a = 11$.
a) Find b .

b) Find c .

20. In $\triangle ABC$, $m\angle A = 55.92^\circ$ and $c = 16$.
a) Find a .

b) Find b .

21. In $\triangle ABC$, $m\angle B = 78.13^\circ$ and $b = 41$.
a) Find a .

b) Find c .

22. In $\triangle ABC$, $a = 11$ and $b = 21$.
a) Find $m\angle A$.

b) Find c .