$\qquad$ Date: $\qquad$

## Trigonometry Ratios

## Find each ratio and be sure to reduce, if possible.

1. $\operatorname{Tan} Z$

2. $\sin x$

3. $\cos A$

4. $\sin C$


Draw $\triangle A B C$ where $\angle A B C=90^{\circ}, A B=8, B C=15$, and $A C=17$.
5. What is tan C ?
6. What is $\sin A$ ?

Draw $\triangle A B C$ where $\angle A C B=90^{\circ}, A C=5$, and $C B=12$.
7. What is the length of $A B$ ?
8. What is $\cos A$ ?
9. What is tan $B$ ?

Draw $\triangle C A T$ where $\angle A T C=90^{\circ}, C A=53$, and $C T=28$.
10. What is the length of AT?
11. What is $\sin C$ ?
12. What is tan $A$ ?

Draw $\triangle A B C$ where $\angle B=90^{\circ}$ and $\sin A=\frac{12}{20}$.
13. What is the length of $A B$ ?
14. What is tan $A$ ?
15. What is $\cos \mathrm{A}$ ?

Draw $\triangle H A T$ where $\angle \mathrm{H}=90^{\circ}$ and $\tan T=\frac{12}{35}$.
16. What is the length of AT?
17. What is $\sin A$ ?
18. What is $\cos T$ ?

Draw $\triangle C A N$ where $\angle \mathrm{N}=90^{\circ}$ and $\cos A=\frac{12}{15}$.
19. What is the length of CN ?
20. What is $\sin A$ ?
21. What is tan $C$ ?

In the following problems, using the angle that is given, MARK each given side as A (adjacent), 0 (opposite), or H (hypotenuse). Then TELL which TRIG RATIO you have. You will NOT be solving the problem for $x$ (we haven't learned how YET).
22. Which trig ratio is represented?
A. SIN
B. COS
C. TAN

23. Which trig ratio is represented?
A. SIN
B. $\cos$
C. TAN

24. Which trig ratio is represented?
A. SIN
B. COS
C. TAN


