$\qquad$

## SM2H Review 8.1-8.4

Find the exact values of $\sin \theta, \cos \theta, \tan \theta, \csc \theta, \sec \theta, \cot \theta($ no decimals).
1.

2.

$\sin \theta=$
$\csc \theta=$
$\sin \theta=$
$\csc \theta=$
$\cos \theta=$
$\sec \theta=$
$\cos \theta=$
$\sec \theta=$
$\tan \theta=$
$\cot \theta=$
$\tan \theta=$
$\cot \theta=$

Draw each triangle, then find the asked for ratio (no decimal answers!).
3. Find $\tan \theta$ if $\cos \theta=\frac{10}{13}$
4. Find $\cos \theta$ if $\sin \theta=\frac{2 \sqrt{5}}{6}$

Write the correct trigonometric ratio to solve for the value of $x$. ( $x$ can be the value of the angle OR the length of a side). Then find the value of $x$. Round to the hundredths place.
5.

6.

7.

8.

9.

10.

11.

12.

13.


Solve the triangle. Round answers to the nearest hundredth. Draw a picture FIRST!
14. $\mathrm{a}=11, \angle \mathrm{~B}=51^{\circ}$
15. $a=5, b=14$

| $m \angle A=$ | $a=$ | $m \angle A=$ | $a=$ |
| :--- | :--- | :--- | :--- |
| $m \angle B=$ | $b=$ | $m \angle B=$ | $b=$ |
| $m \angle C=$ | $c=$ | $m \angle C=$ | $c=$ |

Draw the angle measure in standard position. Identify the reference angle and its measurement.
16. $-52^{\circ}$

angle measure $\qquad$
reference angle $\qquad$
17. $223^{\circ}$

angle measure $\qquad$
reference angle $\qquad$

Find the sine, cosine, and tangent of the angle made by the following points. Keep answers in simplified radical form. (NO DECIMALS)
18. $(2,4)$

$\sin \theta=$
$\cos \theta=$
$\tan \theta=$
19. $(4,-3)$

$\sin \theta=$
$\cos \theta=$
$\tan \theta=$

Find the measurement of the STANDARD ANGLE (you will need to first find the reference angle!) that is created by the coordinate point. Draw a picture. Round to the ten-thousandths place.
20. $(-2,7)$

$\theta=$
21. $(6,-5)$


$$
\theta=
$$

Use special right triangles to solve for $x$ and $y$. NO DECIMAL ANSWERS ALLOWED!
22.


$$
\begin{aligned}
& x= \\
& y=
\end{aligned}
$$

23. 


24.


$$
\begin{aligned}
& x= \\
& y=
\end{aligned}
$$

$x=$
$y=$

Find the measure of the STANDARD angle (you will first need to find the reference angle using special right triangles). NO DECIMAL ANSWERS ALLOWED!!!
25. $(-4,-4 \sqrt{3})$
26. $(-1,1)$
27. $\left(\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$


$\theta=$

$$
\theta=
$$

$$
\theta=
$$

