Name: **Partners:** **PreCalculus**

Date: **Review 2 Version A**

[A] Circle whether each statement is true or false.

T F 1. $\frac{1}{3 \sec x} = 3 \cos x$

T F 2. $\frac{\sin x}{\tan x} = \sin x \cot x$

T F 3. $\cos \theta = \cos (\theta + 2\pi)$.

T F 4. $^{-13\pi}/_{3}$ is in quadrant I.

T F 5. $\sin 2x = 2 \sin x \cos x$

T F 6. $\cos 2x = \cos^2 x - \sin^2 x$

T F 7. $\tan^{-1}$ and cot are the same function.

T F 8. Reference angles are never negative.

T F 9. $\cos^{-1}$ and arccos are the same function.

T F 10. $\cos^3 x \sin x - \tan x \cos^2 x = \cos^2 x (\cos x \sin x - \tan x)$

T F 11. If angle *G* is larger than angle *M* in a triangle, then side *g* is longer than side *m*.

T F 12. When verifying trig identities, you should never do something to both sides at once.

T F 13. If an angle in standard position passes through the point (3, 9), then the angle is $\tan^{-1} {}^{3}/_{9}$.

T F 14. When solving right triangles, the functions `sin`, `cos`, and `tan` are used to find the lengths of the sides, and the functions $\texttt{sin}^{-1}$, $\texttt{cos}^{-1}$, and $\texttt{tan}^{-1}$ are used to find the measures of the angles.

[B] Circle one side of each equation, and rewrite this side in the first box. Use additional boxes to repeat this as needed until the expression is identical to the other side of the equation. Use only pencil, and completely erase any mistakes and any steps you do not use.

1. $\sec x - \cos x = \sin x \tan x$

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2. $4 - \sin^2 x = \cos^2 x + 3$

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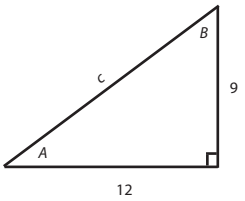
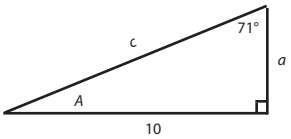
[C] Solve. Show all steps, including trig equations and inverse trig functions, using equations only.

1. $A =$ _____, $B =$ _____, $c =$ _____



2. $A =$ _____, $a =$ _____, $c =$ _____



[D] Fill in the following chart.

θ in degrees	60°		
θ in radians		$^{2\pi}/_{3}$	
sketch (in standard position)			
a negative coterminal angle, in radians			
reference angle			
a point passed through			(6, -8)
tan θ			
sec θ			

[E] Do the following to organize your group's reviews.

1. Make sure your name and your partners' names are at the top of your review the first day.
2. Staple the reviews in order, all facing the same way. Put the staple in the very top left corner if everyone is finished, or in the top right corner if not everyone is finished.

Name: **Partners:** **PreCalculus**

Date: **Review 2 Version B**

[A] Circle whether each statement is true or false.

T F 1. $\frac{1}{3 \sec x} = 3 \cos x$

T F 2. $\frac{\sin x}{\tan x} = \sin x \cot x$

T F 3. $\cos \theta = \cos (\theta + 2\pi)$.

T F 4. $^{-13\pi}/_{3}$ is in quadrant I.

T F 5. $\sin 2x = 2 \sin x \cos x$

T F 6. $\cos 2x = \cos^2 x - \sin^2 x$

T F 7. $\tan^{-1}$ and cot are the same function.

T F 8. Reference angles are never negative.

T F 9. $\cos^{-1}$ and arccos are the same function.

T F 10. $\cos^3 x \sin x - \tan x \cos^2 x = \cos^2 x (\cos x \sin x - \tan x)$

T F 11. If angle *G* is larger than angle *M* in a triangle, then side *g* is longer than side *m*.

T F 12. When verifying trig identities, you should never do something to both sides at once.

T F 13. If an angle in standard position passes through the point (3, 9), then the angle is $\tan^{-1} {}^{3}/_{9}$.

T F 14. When solving right triangles, the functions `sin`, `cos`, and `tan` are used to find the lengths of the sides, and the functions $\texttt{sin}^{-1}$, $\texttt{cos}^{-1}$, and $\texttt{tan}^{-1}$ are used to find the measures of the angles.

[B] Circle one side of each equation, and rewrite this side in the first box. Use additional boxes to repeat this as needed until the expression is identical to the other side of the equation. Use only pencil, and completely erase any mistakes and any steps you do not use.

1. $\tan x \csc^2 x = \sec x \csc x$

=
=
=
=
=
=

3. $\csc^2 x - \cot x \csc x = \frac{1}{1 + \cos x}$

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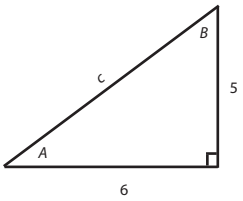
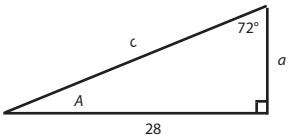
=

[C] Solve. Show all steps, including trig equations and inverse trig functions, using equations only.

1. $A =$ _____, $B =$ _____, $c =$ _____



2. $A =$ _____, $a =$ _____, $c =$ _____



[D] Fill in the following chart.

θ in degrees	-750°		
θ in radians		$5\pi/3$	
sketch (in standard position)			
a negative coterminal angle, in radians			
reference angle			
a point passed through			(6, -4)
$\tan\theta$			
$\sec\theta$			

[E] Bonus.

1. Use the formulas $\sin = y/r$, $\cos = x/r$, $\tan = y/x$, and $x^2 + y^2 = r^2$ to simplify the following.

a) $\cot\theta \tan\theta$

b) $\cos^2\theta + \sin^2\theta$

Name: **Partners:** **PreCalculus**

Date: **Review 2 Version C**

[A] Circle whether each statement is true or false.

T F 1. $\frac{1}{3 \sec x} = 3 \cos x$

T F 2. $\frac{\sin x}{\tan x} = \sin x \cot x$

T F 3. $\cos \theta = \cos (\theta + 2\pi)$.

T F 4. $^{-13\pi}/_{3}$ is in quadrant I.

T F 5. $\sin 2x = 2 \sin x \cos x$

T F 6. $\cos 2x = \cos^2 x - \sin^2 x$

T F 7. $\tan^{-1}$ and cot are the same function.

T F 8. Reference angles are never negative.

T F 9. $\cos^{-1}$ and arccos are the same function.

T F 10. $\cos^3 x \sin x - \tan x \cos^2 x = \cos^2 x (\cos x \sin x - \tan x)$

T F 11. If angle *G* is larger than angle *M* in a triangle, then side *g* is longer than side *m*.

T F 12. When verifying trig identities, you should never do something to both sides at once.

T F 13. If an angle in standard position passes through the point (3, 9), then the angle is $\tan^{-1} {}^{3}/_{9}$.

T F 14. When solving right triangles, the functions `sin`, `cos`, and `tan` are used to find the lengths of the sides, and the functions $\texttt{sin}^{-1}$, $\texttt{cos}^{-1}$, and $\texttt{tan}^{-1}$ are used to find the measures of the angles.

[B] Circle one side of each equation, and rewrite this side in the first box. Use additional boxes to repeat this as needed until the expression is identical to the other side of the equation. Use only pencil, and completely erase any mistakes and any steps you do not use.

1. $\sin x \tan x + \cos x = \sec x$

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=
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2. $\frac{1}{1 + \sin x} + \frac{1}{1 + \csc x} = 1$

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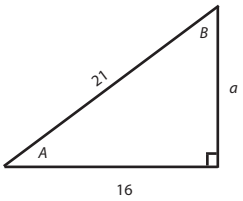
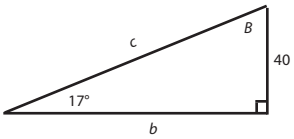
[C] Solve. Show all steps, including trig equations and inverse trig functions, using equations only.

1. $A =$ _____, $B =$ _____, $a =$ _____



2. $B =$ _____, $b =$ _____, $c =$ _____



[D] Fill in the following chart.

θ in degrees			
θ in radians	$^{11\pi}/_{3}$		
sketch (in standard position)			
a negative coterminal angle, in radians			
reference angle			
a point passed through			(-7, -3)
$\tan\theta$		1	
$\sec\theta$		$-\sqrt{2}$	

[E] Bonus.

1. Use the formulas $\sin = {}^{y}/_{r}$, $\cos = {}^{x}/_{r}$, $\tan = {}^{y}/_{x}$, and $x^2 + y^2 = r^2$ to simplify the following.

a) $\cos\theta \sec\theta$

b) $\sec^2\theta - \tan^2\theta$

Name: **Partners:** **PreCalculus**

Date: **Review 2 Version D**

[A] Circle whether each statement is true or false.

T F 1. $\frac{1}{3 \sec x} = 3 \cos x$

T F 2. $\frac{\sin x}{\tan x} = \sin x \cot x$

T F 3. $\cos \theta = \cos (\theta + 2\pi)$.

T F 4. $^{-13\pi}/_{3}$ is in quadrant I.

T F 5. $\sin 2x = 2 \sin x \cos x$

T F 6. $\cos 2x = \cos^2 x - \sin^2 x$

T F 7. $\tan^{-1}$ and cot are the same function.

T F 8. Reference angles are never negative.

T F 9. $\cos^{-1}$ and arccos are the same function.

T F 10. $\cos^3 x \sin x - \tan x \cos^2 x = \cos^2 x (\cos x \sin x - \tan x)$

T F 11. If angle *G* is larger than angle *M* in a triangle, then side *g* is longer than side *m*.

T F 12. When verifying trig identities, you should never do something to both sides at once.

T F 13. If an angle in standard position passes through the point (3, 9), then the angle is $\tan^{-1} {}^{3}/_{9}$.

T F 14. When solving right triangles, the functions `sin`, `cos`, and `tan` are used to find the lengths of the sides, and the functions $\texttt{sin}^{-1}$, $\texttt{cos}^{-1}$, and $\texttt{tan}^{-1}$ are used to find the measures of the angles.

[B] Circle one side of each equation, and rewrite this side in the first box. Use additional boxes to repeat this as needed until the expression is identical to the other side of the equation. Use only pencil, and completely erase any mistakes and any steps you do not use.

1. $\sin x \tan x = \sec x - \cos x$

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4. $\sin w \cos w + \sec w \sin^3 w = \tan w$

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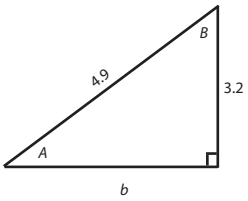
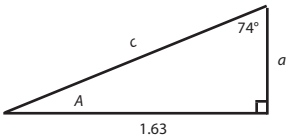
[C] Solve. Show all steps, including trig equations and inverse trig functions, using equations only.

1. $A =$ _____, $B =$ _____, $b =$ _____



2. $A =$ _____, $a =$ _____, $c =$ _____



[D] Fill in the following chart.

θ in degrees			
θ in radians	$^{17\pi}/_{6}$		
sketch (in standard position)			
a negative coterminal angle, in radians			
reference angle			
a point passed through			
$\tan\theta$		$^{-\sqrt{3}}/_{3}$	
$\sec\theta$		$^{2\sqrt{3}}/_{3}$	undefined

[E] Bonus.

1. Use the formulas $\sin = {}^{y}/_{r}$, $\cos = {}^{x}/_{r}$, $\tan = {}^{y}/_{x}$, and $x^2 + y^2 = r^2$ to simplify the following.

a) $\sin\theta \div \cos\theta$

b) $\csc^2\theta - 1$