

Test 1 Review

Date _____ Period _____

Use identities to find the value of each expression.

1) Find $\cos \theta$ and $\sin \theta$

if $\csc \theta = -2$ and $\cos \theta > 0$.

2) Find $\sec \theta$ and $\tan \theta$

if $\cos \theta = -\frac{3}{7}$ and $\csc \theta > 0$.

Convert each degree measure into radians.

3) 825°

Convert each radian measure into degrees.

4) $\frac{53\pi}{12}$

Find a coterminal angle between 0 and 2π .

5) $\frac{43\pi}{6}$

Find the exact value of each trigonometric function.

6) $\csc -\frac{5\pi}{4}$

7) $\csc 585^\circ$

8) $\tan -\frac{17\pi}{6}$

9) $\sec -270^\circ$

10) $\sin \frac{8\pi}{3}$

11) $\csc \frac{11\pi}{3}$

Use the given point on the terminal side of angle θ to find the value of the trigonometric function indicated.

12) $\sec \theta; (9, -\sqrt{19})$

13) $\cos \theta; (-\sqrt{15}, -7)$

Find the exact values of the five trigonometric ratios not given.

14) $\csc \theta = \frac{17\sqrt{2}}{24}$ and $\cos \theta > 0$

In each problem, angle C is a right angle. Find the angle indicated to the nearest tenth.

15) Find $m\angle B$ if $b = 5$, $c = 16$

In each problem, angle C is a right angle. Find the side indicated to the nearest tenth.

16) Find c if $a = 16$, $m\angle B = 51.6^\circ$

In each problem, angle C is a right angle. Solve each triangle rounding answers to the nearest tenth.

17) $b = 12$, $m\angle B = 62^\circ$

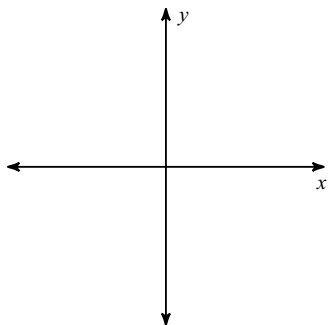
Find the reference angle.

18) $-\frac{7\pi}{4}$

19) $-\frac{3\pi}{4}$

Draw an angle with the given measure in standard position.

20) $-\frac{29\pi}{9}$



In each triangle ABC, angle C is a right angle. Find the value of the trig function indicated.

21) Find $\sin A$ if $b = 24$, $a = 7$

Find the value of the trig function indicated.

22) Find $\cot \theta$ if $\csc \theta = \frac{23\sqrt{22}}{44}$

23) Write $\cos \theta$ in terms of the $\sin \theta$ if θ is in the 3rd quadrant.

24) Write the $\tan \theta$ in terms of the $\cos \theta$ if θ is in the 4th quadrant.

Use identities to find the value of each expression.

25) If $\cos\left(\frac{\pi}{2} - \theta\right) = 0.19$, find $\sin \theta$.

26) If $\tan \theta = 3.49$, find $\cot\left(\theta - \frac{\pi}{2}\right)$.

Test 1 Review

Use identities to find the value of each expression.

1) Find $\cos \theta$ and $\sin \theta$

if $\csc \theta = -2$ and $\cos \theta > 0$.

$$\frac{\sqrt{3}}{2} \text{ and } -\frac{1}{2}$$

2) Find $\sec \theta$ and $\tan \theta$

if $\cos \theta = -\frac{3}{7}$ and $\csc \theta > 0$.

$$-\frac{7}{3} \text{ and } -\frac{2\sqrt{10}}{3}$$

Convert each degree measure into radians.

$$3) 825^\circ \quad \frac{55\pi}{12}$$

Convert each radian measure into degrees.

$$4) \frac{53\pi}{12} \\ 795^\circ$$

Find a coterminal angle between 0 and 2π .

$$5) \frac{43\pi}{6} \quad \frac{7\pi}{6}$$

Find the exact value of each trigonometric function.

$$6) \csc -\frac{5\pi}{4} \\ \sqrt{2}$$

$$7) \csc 585^\circ \\ -\sqrt{2}$$

$$8) \tan -\frac{17\pi}{6} \\ \frac{\sqrt{3}}{3}$$

$$9) \sec -270^\circ \\ \text{Undefined}$$

$$10) \sin \frac{8\pi}{3} \quad \frac{\sqrt{3}}{2}$$

$$11) \csc \frac{11\pi}{3} \quad -\frac{2\sqrt{3}}{3}$$

Use the given point on the terminal side of angle θ to find the value of the trigonometric function indicated.

12) $\sec \theta; (9, -\sqrt{19})$

$$\frac{10}{9}$$

13) $\cos \theta; (-\sqrt{15}, -7) -\frac{\sqrt{15}}{8}$

Find the exact values of the five trigonometric ratios not given.

14) $\csc \theta = \frac{17\sqrt{2}}{24}$ and $\cos \theta > 0$

$$\sin \theta = \frac{12\sqrt{2}}{17}, \cos \theta = \frac{1}{17}, \tan \theta = 12\sqrt{2}$$

$$\sec \theta = 17, \cot \theta = \frac{\sqrt{2}}{24}$$

In each problem, angle C is a right angle. Find the angle indicated to the nearest tenth.

15) Find $m\angle B$ if $b = 5$, $c = 16$

$$18.2^\circ$$

In each problem, angle C is a right angle. Find the side indicated to the nearest tenth.

16) Find c if $a = 16$, $m\angle B = 51.6^\circ$

$$25.8$$

In each problem, angle C is a right angle. Solve each triangle rounding answers to the nearest tenth.

17) $b = 12$, $m\angle B = 62^\circ$

$$m\angle A = 28^\circ, a = 6.4, c = 13.6$$

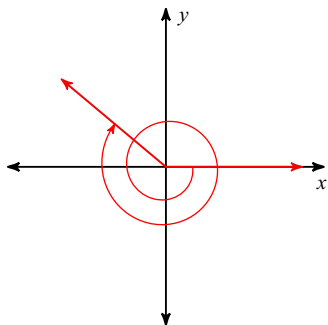
Find the reference angle.

18) $-\frac{7\pi}{4}$ $\frac{\pi}{4}$

19) $-\frac{3\pi}{4}$ $\frac{\pi}{4}$

Draw an angle with the given measure in standard position.

20) $-\frac{29\pi}{9}$



In each triangle ABC, angle C is a right angle. Find the value of the trig function indicated.

21) Find $\sin A$ if $b = 24$, $a = 7$

$\frac{7}{25}$

Find the value of the trig function indicated.

22) Find $\cot \theta$ if $\csc \theta = \frac{23\sqrt{22}}{44}$

$\frac{21\sqrt{22}}{44}$

23) Write $\cos \theta$ in terms of the $\sin \theta$ if θ is in the 3rd quadrant.

24) Write the $\tan \theta$ in terms of the $\cos \theta$ if θ is in the 4th quadrant.

Use identities to find the value of each expression.

25) If $\cos\left(\frac{\pi}{2} - \theta\right) = 0.19$, find $\sin \theta$. **0.19**

26) If $\tan \theta = 3.49$, find $\cot\left(\theta - \frac{\pi}{2}\right)$. **-3.49**