

Final Review
Module 3, Unit 6

Find a positive angle less than 360° or 2π that is coterminal with the given angle.

1. -835°

2. $\frac{16\pi}{5}$

A point on the terminal side of angle θ is given. Find the exact value of the indicated trigonometric function of θ . Draw a triangle and label.

3. $(3, -2)$ Find $\sin \theta$.

4. $(-3, -4)$ Find $\sec \theta$.

Find the exact value of the indicated trigonometric function of θ . Draw a triangle and label.

5. $\cot \theta = -\frac{5}{3}$, $\cos \theta < 0$ Find $\csc \theta$.

6. $\cos \theta = \frac{7}{10}$, $\tan \theta < 0$ Find $\sin \theta$.

7. $\sin \theta = -\frac{2}{7}$, $\tan \theta > 0$ Find $\sec \theta$.

Find the exact value of the expression. Draw a triangle/point and label. Show all necessary work.

8. $\csc \frac{4\pi}{3}$

9. $\sin \frac{-4\pi}{3}$

10. $\tan \frac{-9\pi}{4}$

11. $\sec \frac{-7\pi}{6}$

12. $\cot \frac{3\pi}{4}$

13. $\tan \frac{-29\pi}{3}$

14. $\tan 1110^\circ$

15. $\tan \frac{-3\pi}{2}$

16. $\csc(-135^\circ)$

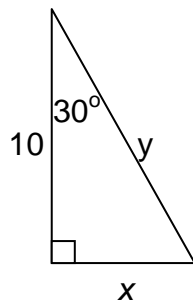
17. $\cos 540^\circ$

18. $\sec(-855^\circ)$

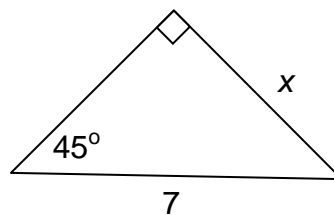
19. $\csc 990^\circ$

Solve for the missing side using special right triangles. Leave your answer in exact form.

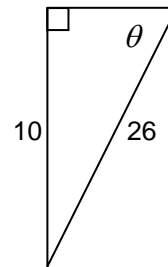
20.



21.



22. Find the value of each of the six trigonometric functions of θ . Show all necessary work.



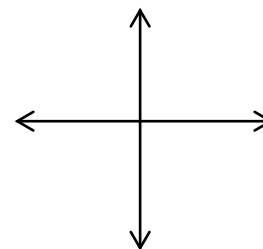
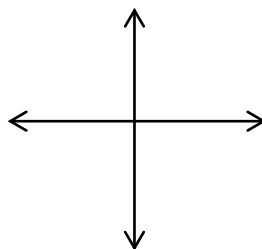
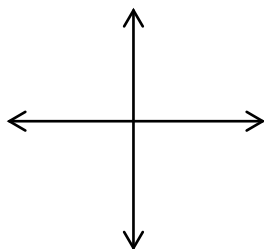
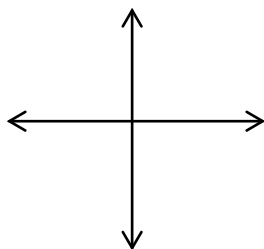
Draw and label each angle in standard position.

23. $\frac{3\pi}{4}$

24. -210°

25. $-\frac{3\pi}{2}$

26. 495°



Answers

1. 245°

2. $\frac{6\pi}{5}$

3. $-\frac{2\sqrt{13}}{13}$

4. $-\frac{5}{3}$

5. $\frac{\sqrt{34}}{3}$

6. $-\frac{\sqrt{51}}{10}$

7. $-\frac{7\sqrt{5}}{15}$

8. $\frac{-2\sqrt{3}}{3}$

9. $\frac{\sqrt{3}}{2}$

10. -1

11. $\frac{-2\sqrt{3}}{3}$

12. -1

13. $\sqrt{3}$

14. $\frac{\sqrt{3}}{3}$

15. undefined

16. $-\sqrt{2}$

17. -1

18. $-\sqrt{2}$

19. -1

20. $x = \frac{10\sqrt{3}}{3},$

$y = \frac{20\sqrt{3}}{3}$

21. $\frac{7\sqrt{2}}{2}$

$$22. \sin \theta = \frac{5}{13}$$

$$\cos \theta = \frac{12}{13}$$

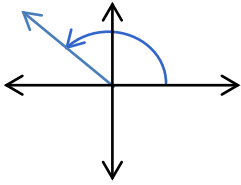
$$\tan \theta = \frac{5}{12}$$

$$\csc \theta = \frac{13}{5}$$

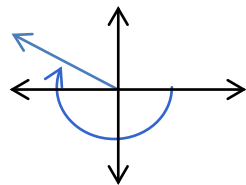
$$\sec \theta = \frac{13}{12}$$

$$\cot \theta = \frac{12}{5}$$

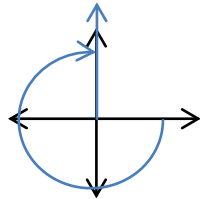
23.



24.



25.



26.

