

Aim: How do we express a trig function to a function of a positive acute angle?

Get Ready:

I. Convert from degrees to radians

- a. 135° b. 300° c. 100°

II. Convert from radians to degrees

- a. $\frac{5\pi}{3}$ b. $-\frac{11\pi}{6}$ c. 4

III. Find the reference angle in degrees. Then convert your answer to radians.

- a. $\frac{5\pi}{4}$ b. $\frac{-7\pi}{6}$ c. $\frac{4\pi}{3}$

Functions of a Positive Acute Angle

- i) find reference angle
ii) find sign of function in that quadrant
iii) express as function of reference angle

- 1) $\sin(\frac{3\pi}{4})$ 2) $\cos(\frac{2\pi}{3})$

- 3) $\tan(\frac{5\pi}{6})$ 4) $\sin(\frac{7\pi}{6})$

- 5) $\cos(\frac{5\pi}{4})$ 6) $\tan(\frac{10\pi}{9})$

7) $\sin(\frac{29\pi}{18})$

8) $\cos(\frac{65\pi}{35})$

9) $\tan(\frac{61\pi}{36})$

10) $\sin(\frac{37\pi}{12})$

11) $\tan(\frac{41\pi}{9})$

12) $\tan(-\frac{5\pi}{4})$

13) $\sin(-\frac{\pi}{4})$

14) $\cos(-\frac{43\pi}{18})$

15) $\sin(\frac{11\pi}{9})$

16) $\sin(\frac{23\pi}{36})$

17) $\sin(\frac{5\pi}{3})$

18) $\sin(-\frac{\pi}{4})$

Aim: How do we express a trig function to a function of a positive acute angle?

19) $\sin\left(\frac{49\pi}{16}\right)$

20) $\sin\left(\frac{-55\pi}{18}\right)$

29) $\tan\left(-\frac{3\pi}{4}\right)$

30) $\sin\left(\frac{5\pi}{4}\right)$

21) $\cos\left(\frac{3\pi}{4}\right)$

22) $\cos\left(\frac{5\pi}{4}\right)$

31) $\cos\left(\frac{5\pi}{4}\right)$

32) $\tan\left(\frac{5\pi}{4}\right)$

23) $\cos\left(\frac{5\pi}{3}\right)$

24) $\cos\left(-\frac{\pi}{6}\right)$

33) $\sin\left(\frac{25\pi}{36}\right)$

34) $\cos\left(\frac{25\pi}{36}\right)$

25) $\tan\left(\frac{5\pi}{4}\right)$

26) $\tan\left(\frac{3\pi}{4}\right)$

35) $\tan\left(\frac{25\pi}{36}\right)$

36) $\sin\left(\frac{5\pi}{3}\right)$

27) $\tan\left(\frac{5\pi}{3}\right)$

28) $\tan\left(-\frac{5\pi}{3}\right)$

37) $\cos\left(\frac{5\pi}{3}\right)$

38) $\sin\left(-\frac{3\pi}{4}\right)$