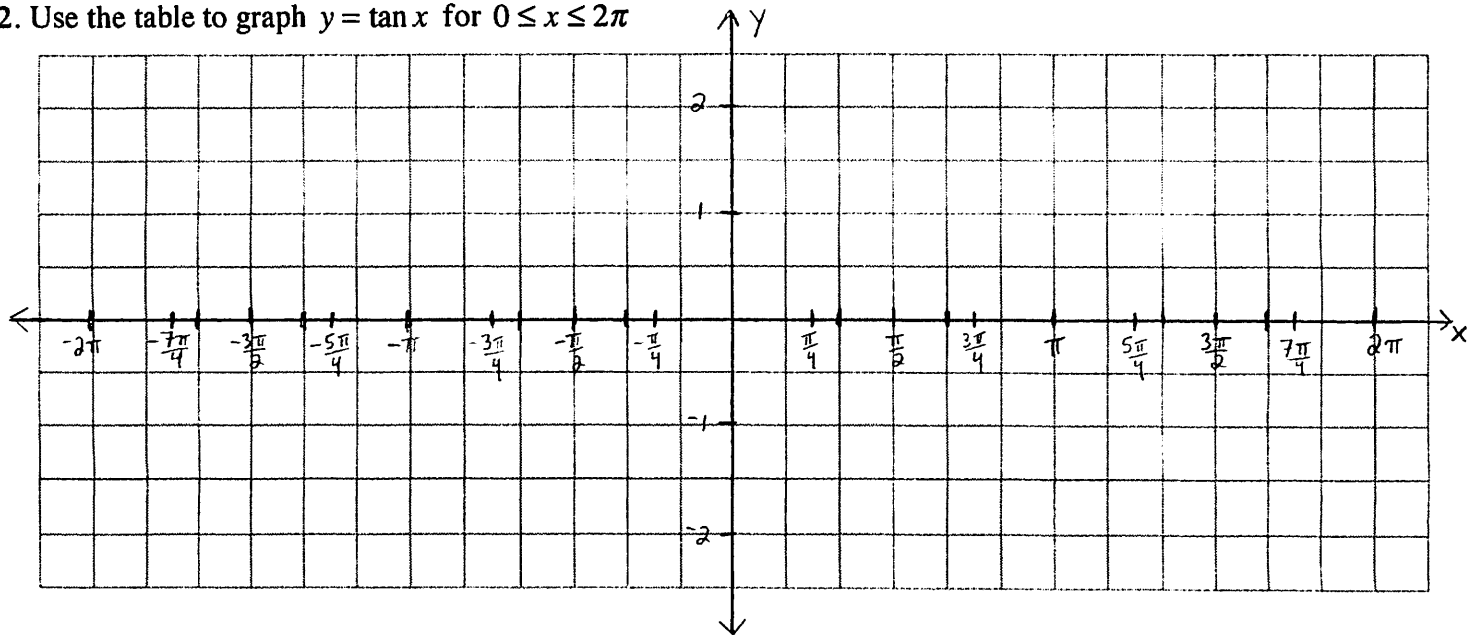


Graphing $y = \tan x$

1. Use your calculator to fill in the missing values rounded to two decimal places.

x (degrees)	0°	30°	45°	60°	90°	120°	135°	150°	180°	210°	225°	240°	270°	300°	315°	330°	360°
x (radians)	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{3\pi}{2}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	2π
$y = \tan x$																	

2. Use the table to graph $y = \tan x$ for $0 \leq x \leq 2\pi$



3. Is $y = \tan x$ a function?

4. Domain: _____
- Range: _____
- Amplitude: _____
- Period: _____
- Frequency: _____

5. Sketch the graphs of $y = \tan x$ and $y = 2 \sin \frac{1}{2}x$ in the interval $0 \leq x \leq 2\pi$.

For how many values of x in the interval $0 \leq x \leq 2\pi$ does $\tan x = 2 \sin \frac{1}{2}x$?



6. Which is *not* an element of the domain of $y = \tan x$?

- (1) π (2) 0 (3) $-\pi$ (4) $-\frac{\pi}{2}$