

TRINGO

Before class directions:

1. Print and cut the RANDOM CALL CARDS ahead of time. Put them in a hat (or whatever) that you'll be able to pull them out of at random. [Unless I'm wrong on this, by the time you get through all of these cards, either someone must have won or not a single person in class knows what they're doing...]
2. Print (at least) one set of TRINGO grids per student.

In class directions:

1. Students should put each number in the left-hand column in one of the boxes of the TRINGO grid wherever they like. When they put a number in a box, they should then cross it off the list of numbers. Explain to students that they should try to have a pattern others don't have so they are less likely to tie.
2. When students are ready, explain that you are going to pull cards at random from the hat. Each card will have an expression that they are to evaluate. They should evaluate it (from memory!) and put an X in the box that equals the value they found. **Example:** You pull $\sin^{-1}(\text{blah})$ from your hat. You know that $\sin^{-1}(\text{blah}) = grr$ so you find one of the *grrs* on your card and put an X. For each card pulled from the hat you make only one X.
3. Continue pulling cards from the hat until someone wins.

Winning the round:

A student has won a round when they have five Xs in a row along a vertical, horizontal, or diagonal line. They should really yell "TRINGO!!!" when they win...I think we can all agree on that.

Starting a new round:

Dump the RANDOM CALL CARDS back into the hat and do it all over again. Repeat until you're tired of it.

TRINGO

Here are the RANDOM CALL CARDS

Print, cut, put in a hat.

$\sin^{-1}(-1)$	$\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$	$\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$	$\sin^{-1}\left(-\frac{1}{2}\right)$	$\sin^{-1}(0)$
$\sin^{-1}\left(\frac{1}{2}\right)$	$\sin^{-1}\left(\frac{\sqrt{2}}{2}\right)$	$\sin^{-1}\left(\frac{\sqrt{3}}{2}\right)$	$\sin^{-1}(1)$	$\cos^{-1}(1)$
$\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$	$\cos^{-1}\left(\frac{\sqrt{2}}{2}\right)$	$\cos^{-1}\left(\frac{1}{2}\right)$	$\cos^{-1}(0)$	$\cos^{-1}\left(-\frac{1}{2}\right)$
$\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$	$\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)$	$\cos^{-1}(-1)$	$\tan^{-1}(-\sqrt{3})$	$\tan^{-1}(-1)$
$\tan^{-1}\left(-\frac{\sqrt{3}}{3}\right)$	$\tan^{-1}(0)$	$\tan^{-1}\left(\frac{\sqrt{3}}{3}\right)$	$\tan^{-1}(1)$	$\tan^{-1}(\sqrt{3})$

TRINGO

0	0	0					
$\frac{\pi}{6}$	$\frac{\pi}{6}$	$\frac{\pi}{6}$					
$\frac{\pi}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{4}$					
$\frac{\pi}{3}$	$\frac{\pi}{3}$	$\frac{\pi}{3}$					
$\frac{\pi}{2}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$					
$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π					
$-\frac{\pi}{6}$	$-\frac{\pi}{6}$	$-\frac{\pi}{4}$					
$-\frac{\pi}{4}$	$-\frac{\pi}{3}$	$-\frac{\pi}{3}$					
$-\frac{\pi}{2}$							

0	0	0					
$\frac{\pi}{6}$	$\frac{\pi}{6}$	$\frac{\pi}{6}$					
$\frac{\pi}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{4}$					
$\frac{\pi}{3}$	$\frac{\pi}{3}$	$\frac{\pi}{3}$					
$\frac{\pi}{2}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$					
$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π					
$-\frac{\pi}{6}$	$-\frac{\pi}{6}$	$-\frac{\pi}{4}$					
$-\frac{\pi}{4}$	$-\frac{\pi}{3}$	$-\frac{\pi}{3}$					
$-\frac{\pi}{2}$							

TRINGO

0	0	0					
$\frac{\pi}{6}$	$\frac{\pi}{6}$	$\frac{\pi}{6}$					
$\frac{\pi}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{4}$					
$\frac{\pi}{3}$	$\frac{\pi}{3}$	$\frac{\pi}{3}$					
$\frac{\pi}{2}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$					
$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π					
$-\frac{\pi}{6}$	$-\frac{\pi}{6}$	$-\frac{\pi}{4}$					
$-\frac{\pi}{4}$	$-\frac{\pi}{3}$	$-\frac{\pi}{3}$					
$-\frac{\pi}{2}$							

0	0	0					
$\frac{\pi}{6}$	$\frac{\pi}{6}$	$\frac{\pi}{6}$					
$\frac{\pi}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{4}$					
$\frac{\pi}{3}$	$\frac{\pi}{3}$	$\frac{\pi}{3}$					
$\frac{\pi}{2}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$					
$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π					
$-\frac{\pi}{6}$	$-\frac{\pi}{6}$	$-\frac{\pi}{4}$					
$-\frac{\pi}{4}$	$-\frac{\pi}{3}$	$-\frac{\pi}{3}$					
$-\frac{\pi}{2}$							