

Trig Equation Bank

- Model questions on the board beforehand
- <https://www.desmos.com/calculator/arttfflmpa>
- <https://www.desmos.com/calculator/wjsbajlfyz>
- students in groups to start with
- Teacher discretion as to which of a few problems to give (perhaps on cards)
- students choose from set and complete all multiple representations

$\sin(x) = 1$ $[0, 360)$	$2\sin(x) = 1$ $[-90, 90]$
$\cos(t) = 1$ $[0, 360)$	$\cos(t) = 2/7$ $[0, 540)$
$\sin(\theta) = \frac{1}{2}$ $[0, 360)$	$\sin(x) = -3/4$ $(-45, 90)$
$\cos(b) = 1$ $(0, 360)$	$\cos(t) = -7/5$ $(0, 360)$
$\cos(x) = -\frac{1}{2}$ $[0, 360]$	$\sin(x) - 1 = 0$ $[0, 360]$
$\sin(x) = \frac{1}{8}$ $[0, 360)$	$3\sin(t) = 1/2$ $(-180, 180)$
$\cos(x) = \frac{2}{7}$ $[0, 360)$	$\sin(x - 180) = 1$ $[0, 360)$
$\sin(x) = -3/5$ $[0, 360)$	$\sin(x + 45) - 1 = 0$ $[0, 360]$
$\cos(\theta) = \pm 1$ $[-360, 360]$	$\cos(\theta - 540) = 1$ $[0, 360]$

$\sin(\theta) = 1$ $[0, 2\pi)$	$2\sin(x) = 1$ $[-\pi/2, \pi/2]$
$\cos(t) = 1$ $[0, 2\pi)$	$\cos(t) = 2/7$ $[0, 3\pi)$
$\sin(\theta) = \frac{1}{2}$ $[0, 2\pi)$	$\sin(x) = -3/4$ $(-\pi/4, \pi/2)$
$\cos(b) = 1$ $(0, 2\pi)$	$\cos(t) = -7/5$ $(0, 2\pi)$
$\cos(x) = -\frac{1}{2}$ $[0, 2\pi]$	$\sin(x) - 1 = 0$ $[0, 2\pi]$
$\sin(x) = \frac{1}{8}$ $[0, 2\pi)$	$3\sin(t) = 1/2$ $(-\pi, \pi)$
$\cos(x) = \frac{2}{7}$ $[0, 2\pi)$	$\sin(x - \pi) = 1$ $[0, 2\pi)$
$\sin(x) = -3/5$ $[0, 2\pi)$	$\sin(x + \pi/4) - 1 = 0$ $[0, 2\pi]$

$$\cos(\theta) = \pm 1 \quad [-2\pi, 2\pi]$$

$$\cos(\theta - 3\pi) = 1 \quad [0, 2\pi]$$