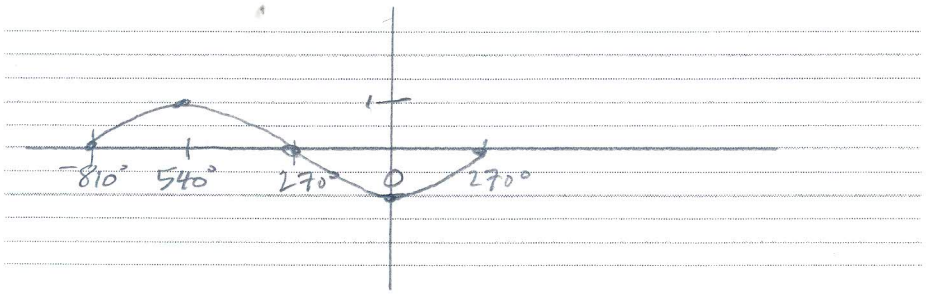
Trig Graphing WS
All Trig Graphs

Name Kristen

Graph one complete period for each function and give the domain and range (in interval notation) of that period.

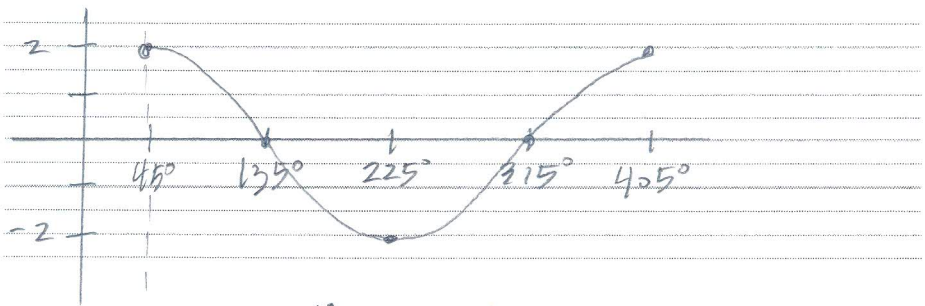
1) $y = \sin\left(\frac{\theta}{3} + 270°\right)$

D: $[-810°, 270°]$
R: $[-1, 1]$
period = $1080°$



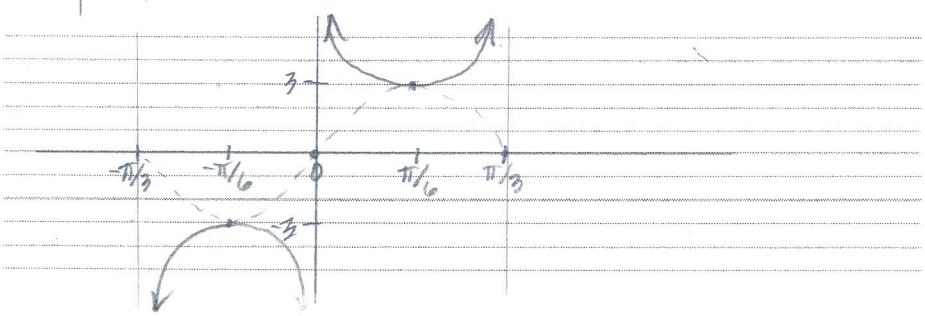
2) $y = 2\cos(\theta - 45°)$

D: $[45°, 405°]$
R: $[-2, 2]$
period = $360°$



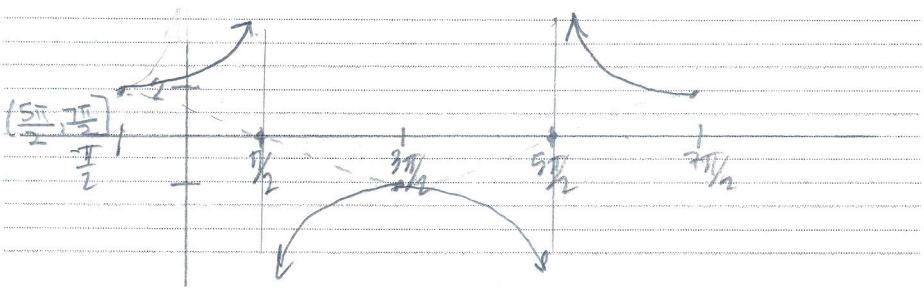
3) $y = -3\csc(3x + \pi)$

D: $(-\frac{\pi}{3}, 0) \cup (0, \frac{\pi}{3})$
R: $(-\infty, -3] \cup [3, \infty)$
period = $\frac{2\pi}{3}$



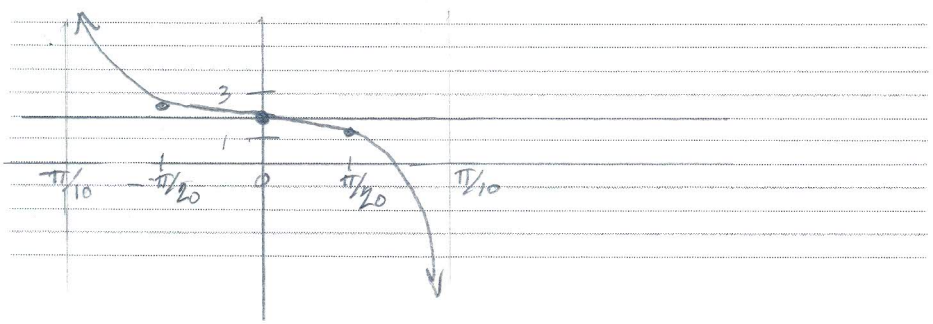
4) $y = 2\sec\left(\frac{1}{2}x + \frac{\pi}{4}\right)$

D: $\left[-\frac{\pi}{2}, \frac{\pi}{2}\right) \cup \left(\frac{\pi}{2}, \frac{5\pi}{2}\right) \cup \left(\frac{5\pi}{2}, \frac{7\pi}{2}\right]$
R: $(-\infty, -2] \cup [2, \infty)$
period = 4π



5) $y = -\frac{1}{2}\tan(5x) + 2$

D: $(-\frac{\pi}{10}, \frac{\pi}{10})$
R: $(-\infty, \infty)$
period = $\frac{\pi}{5}$

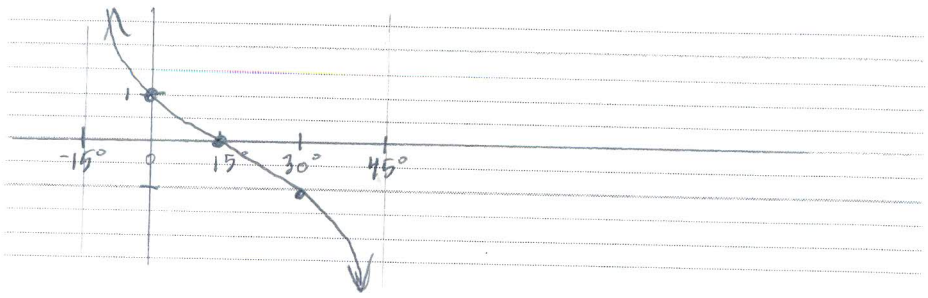


6) $y = \cot(3\theta + 45°)$

D: $(-15°, 45°)$

R: $(-\infty, \infty)$

period = $60°$

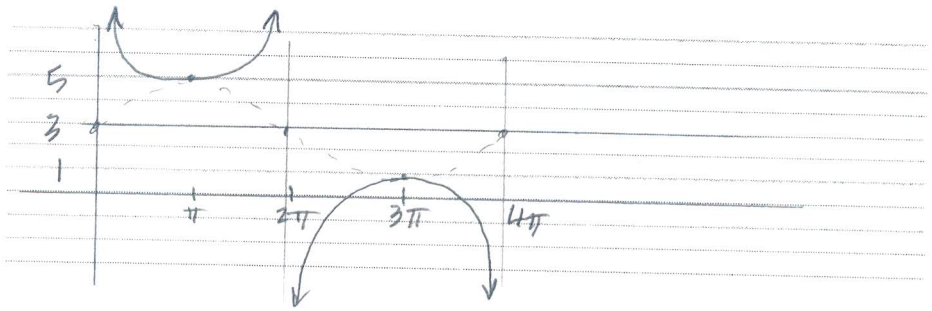


7) $y = 2\csc\frac{x}{2} + 3$

D: $(0, 2\pi) \cup (2\pi, 4\pi)$

R: $(-\infty, 1] \cup [5, \infty)$

period = 4π

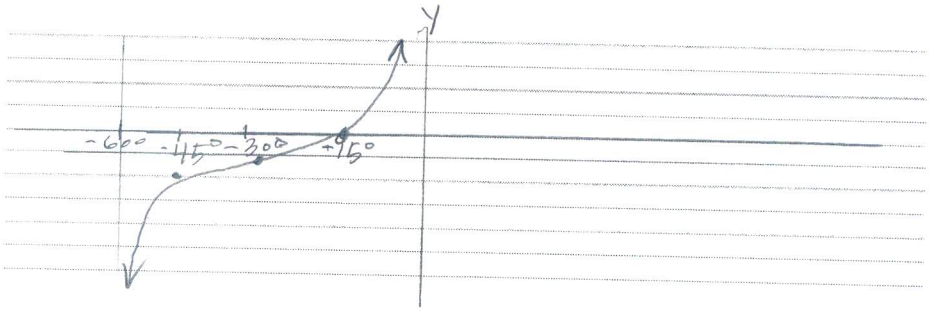


8) $y = \tan(3\theta + 90°) - 1$

D: $(-60°, 0°)$

R: $(-\infty, \infty)$

period = $60°$

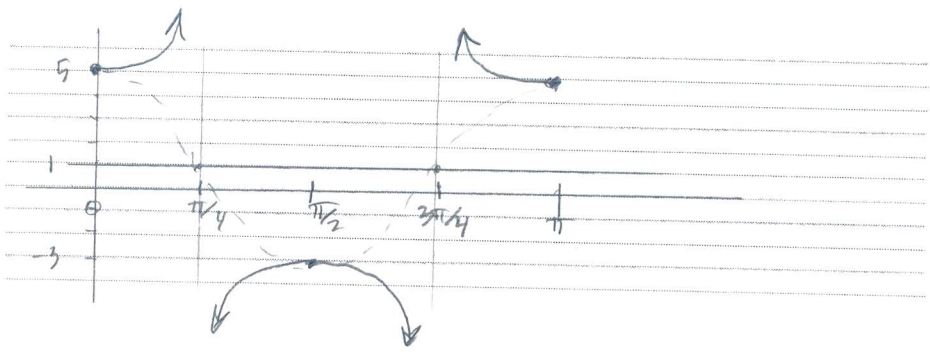


9) $y = 4\sec(2x) + 1$

D: $[0, \frac{\pi}{4}) \cup (\frac{\pi}{4}, \frac{3\pi}{4}) \cup (\frac{3\pi}{4}, \pi]$

R: $(-\infty, -3] \cup [5, \infty)$

period = π



10) $y = -3\sin(\theta - 45°)$

D: $[45°, 405°]$

R: $[-3, 3]$

period = $360°$