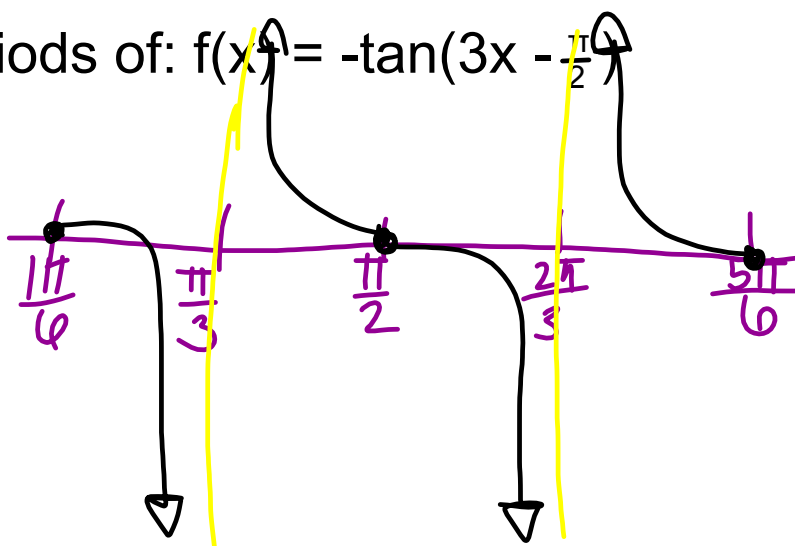


Warm Up 1/31/17

Graph 2 periods of: $f(x) = -\tan(3x - \frac{\pi}{2})$

Amp. 1
 2 Period = $\frac{2\pi}{3}$
 I.M.I.I
 V.S = None
 H.S = $\frac{1\pi}{6} = X$
 DADAD



LT: Graph tangent and cotangent functions and their transformations

Part II: Cotangent

- ★ 1 Period is π
- ★ Graph 2 Periods (determines interval)

Let's Graph $f(x) = \cot x$

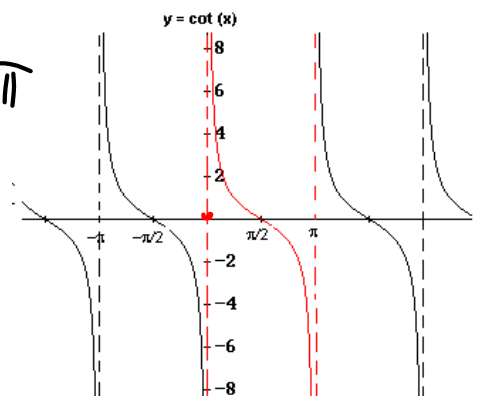
Amp = 1 $0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}, 2\pi$

2 Per. = 2π

Int. = $\frac{\pi}{2}$

V.S. & H.S = None

ADADA



Ex 4) Graph 2 periods of: $f(x) = \cot(\frac{x}{2}) + 4$

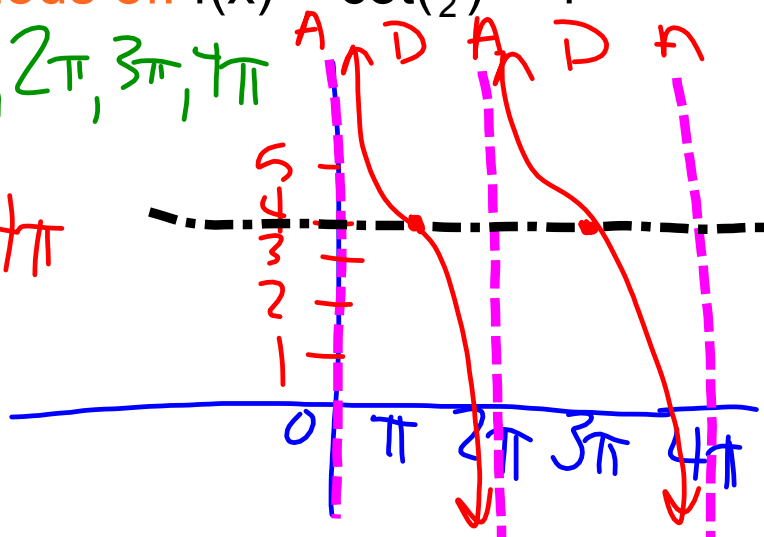
Amp = 1 $0, \pi, 2\pi, 3\pi, 4\pi$

2Per. = $2\pi \cdot \frac{2}{1} = 4\pi$

Int. = π

V.S = +4

H.S = 0



Ex 5) Graph 2 periods of: $f(x) = 3\cot(\frac{1}{4}x) - 2$

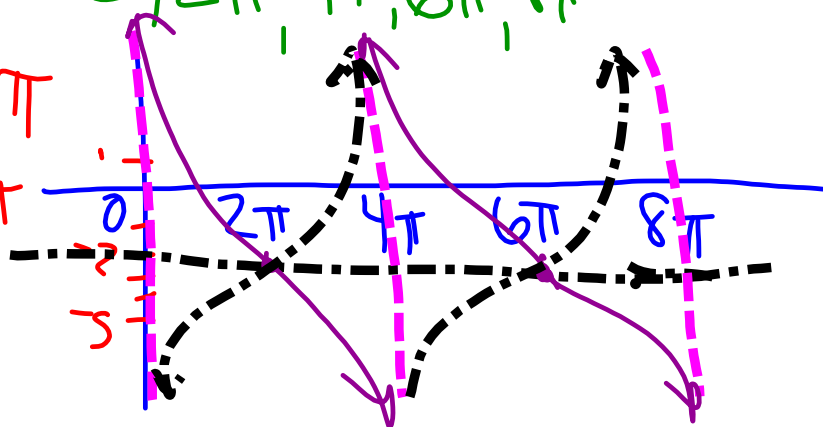
Amp = 3 $0, 2\pi, 4\pi, 6\pi, 8\pi$

2Per. = 8π

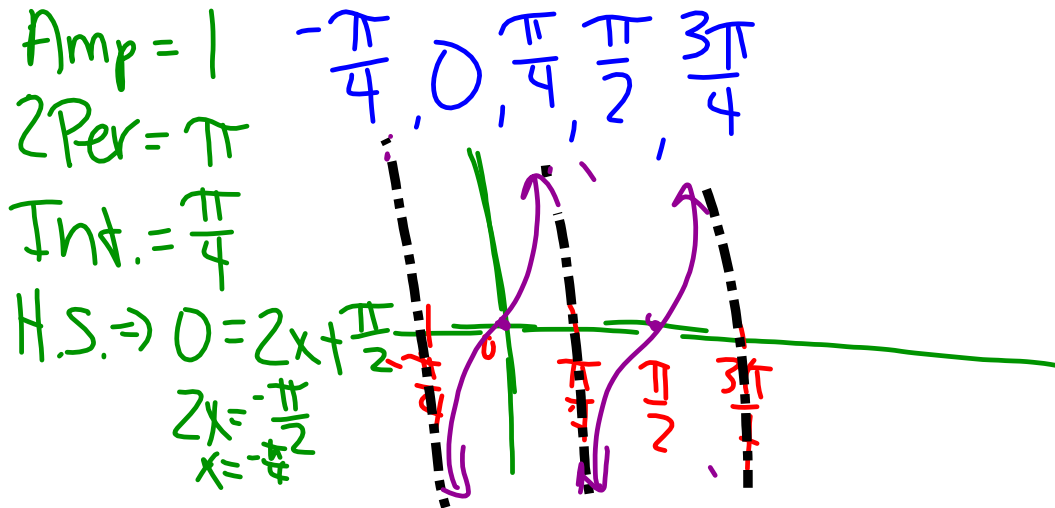
Int. = 2π

H.S = 0

V.S = -2



Ex 6) Graph 2 periods of: $f(x) = -\cot(2x + \frac{\pi}{2})$



Ex 7) Graph 2 periods of: $f(x) = -2\cot(\frac{1}{4}x + \frac{\pi}{8})$