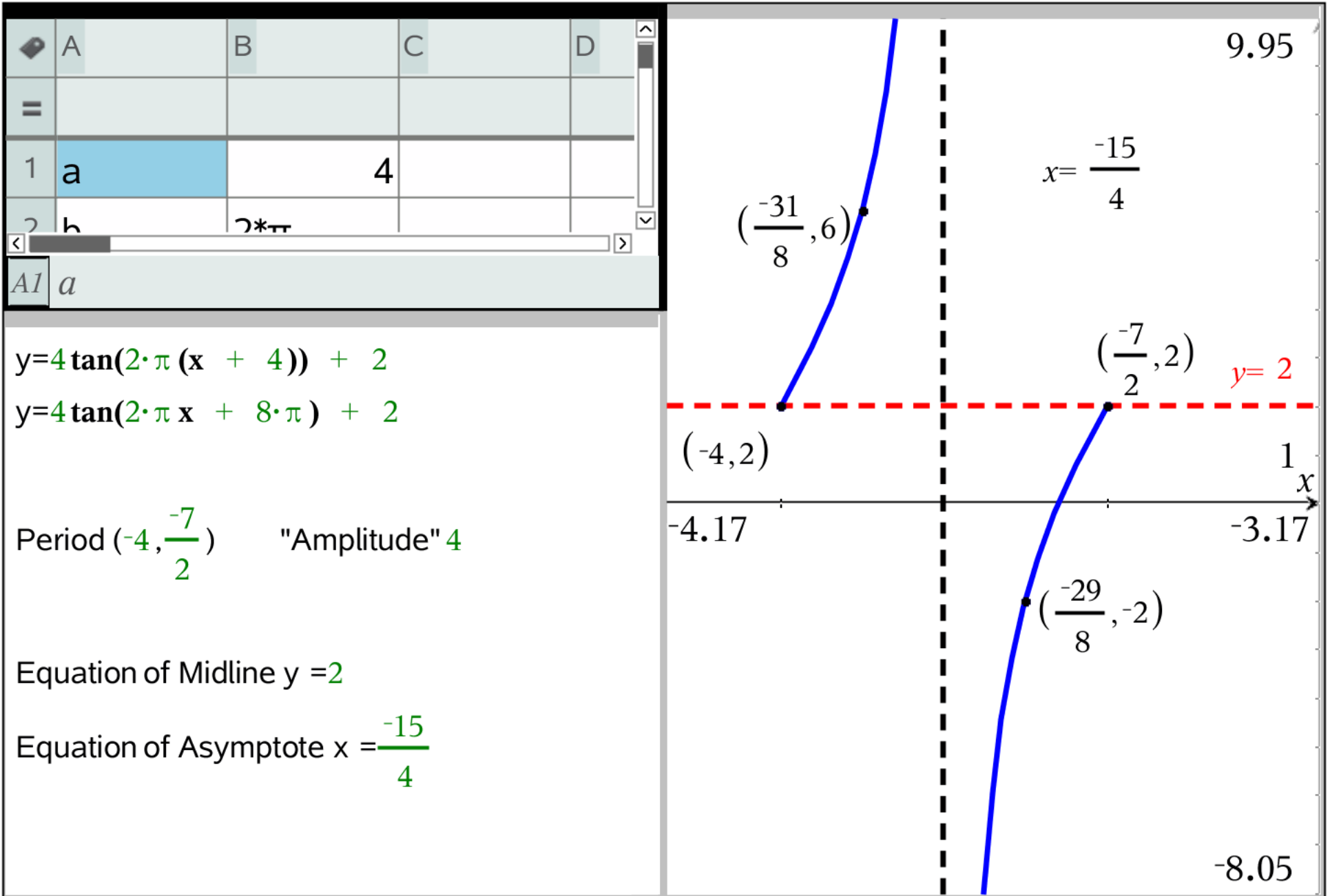
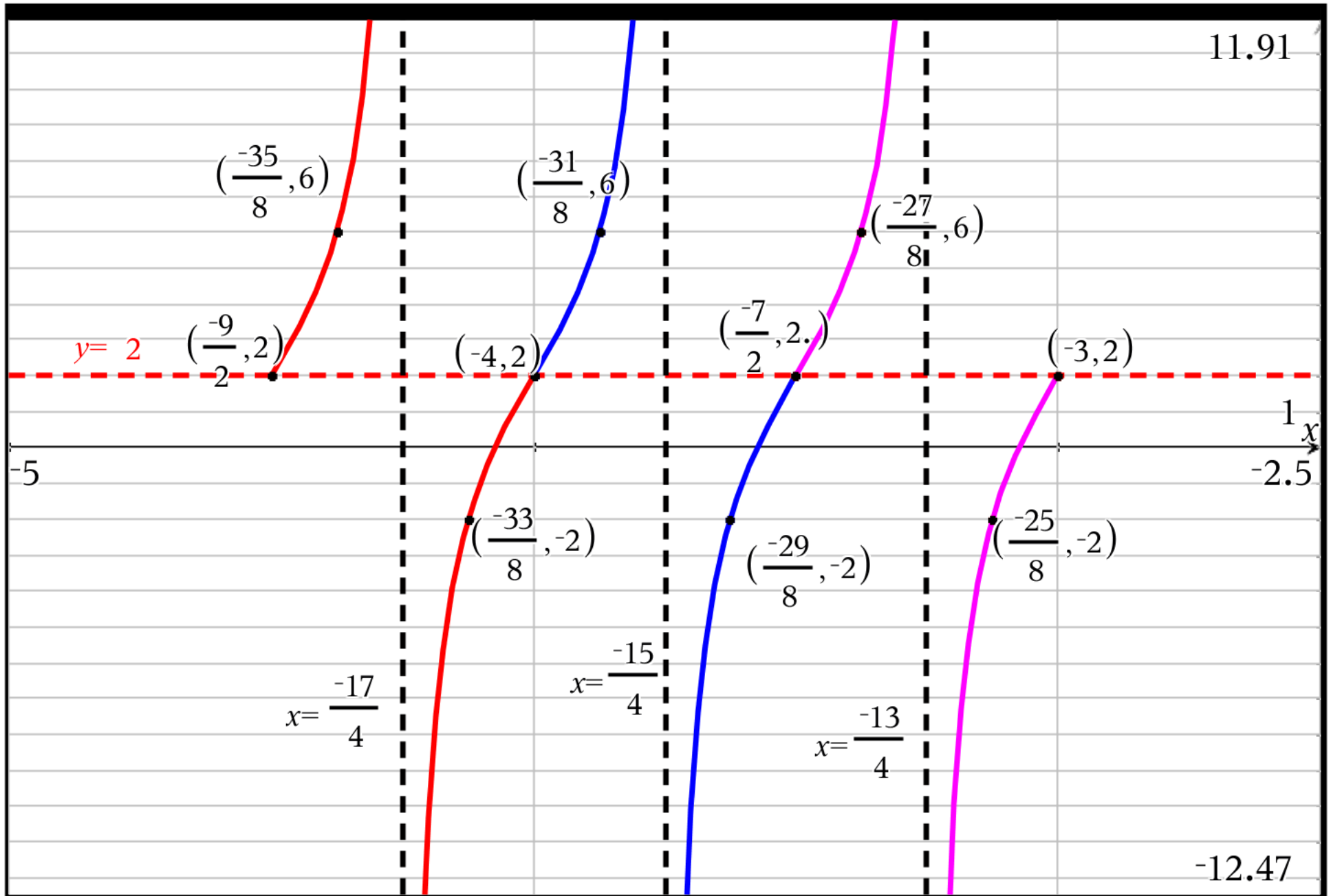


tangent transformations 1





tangent transformations 2

	A	B	C	D
=				
1	a		-5/8	
2	b		4/5	
3	c	-π/5		

A1 a

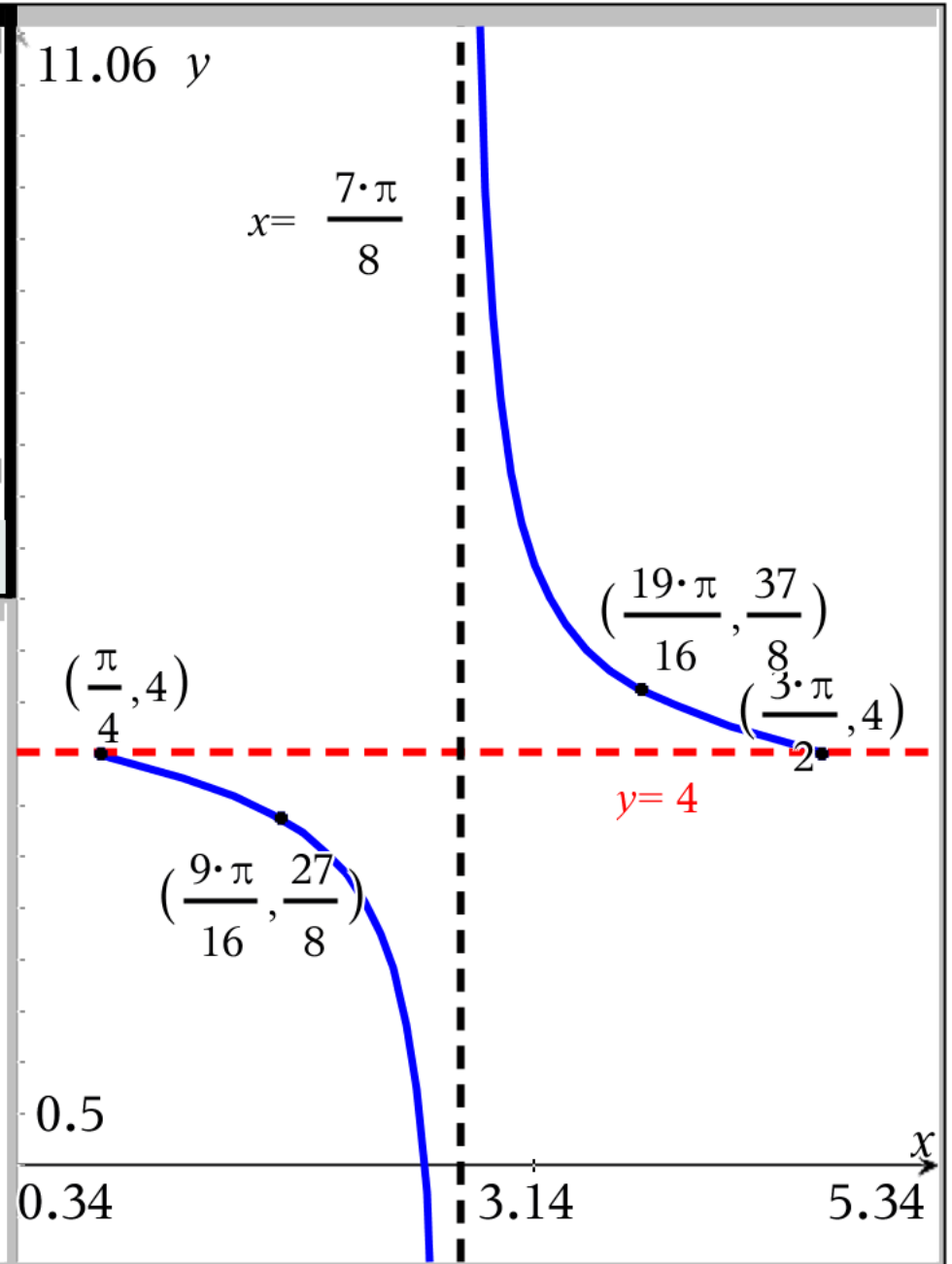
$$y = \frac{-5}{8} \tan\left(\frac{4}{5}\left(x - \frac{\pi}{4}\right)\right) + 4$$

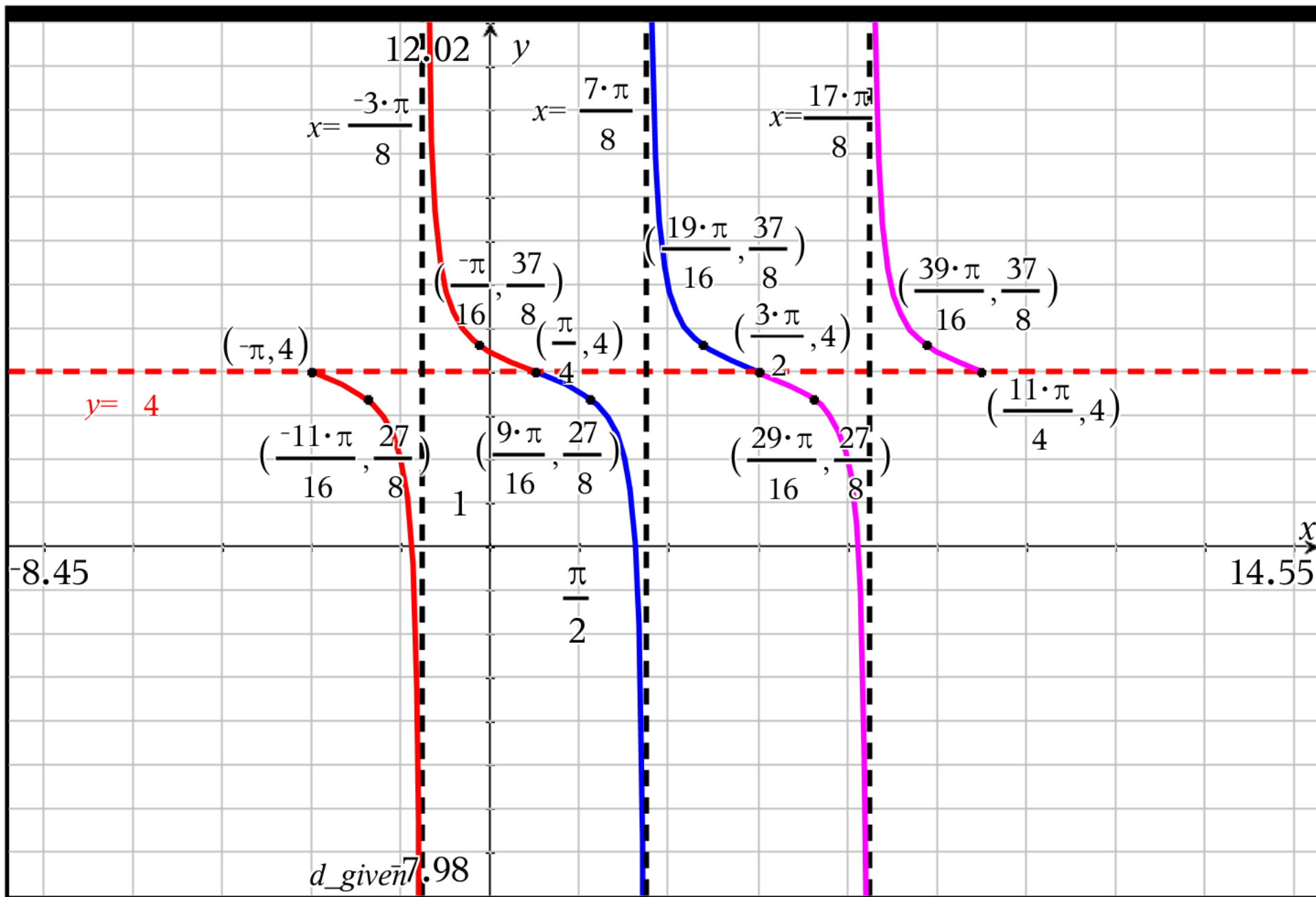
$$y = \frac{-5}{8} \tan\left(\frac{4}{5}x - \frac{\pi}{5}\right) + 4$$

Period $\left(\frac{\pi}{4}, \frac{3 \cdot \pi}{2}\right)$ Amplitude $\frac{5}{8}$

Equation of Midline $y = 4$

Equation of Asymptote $x = \frac{7 \cdot \pi}{8}$

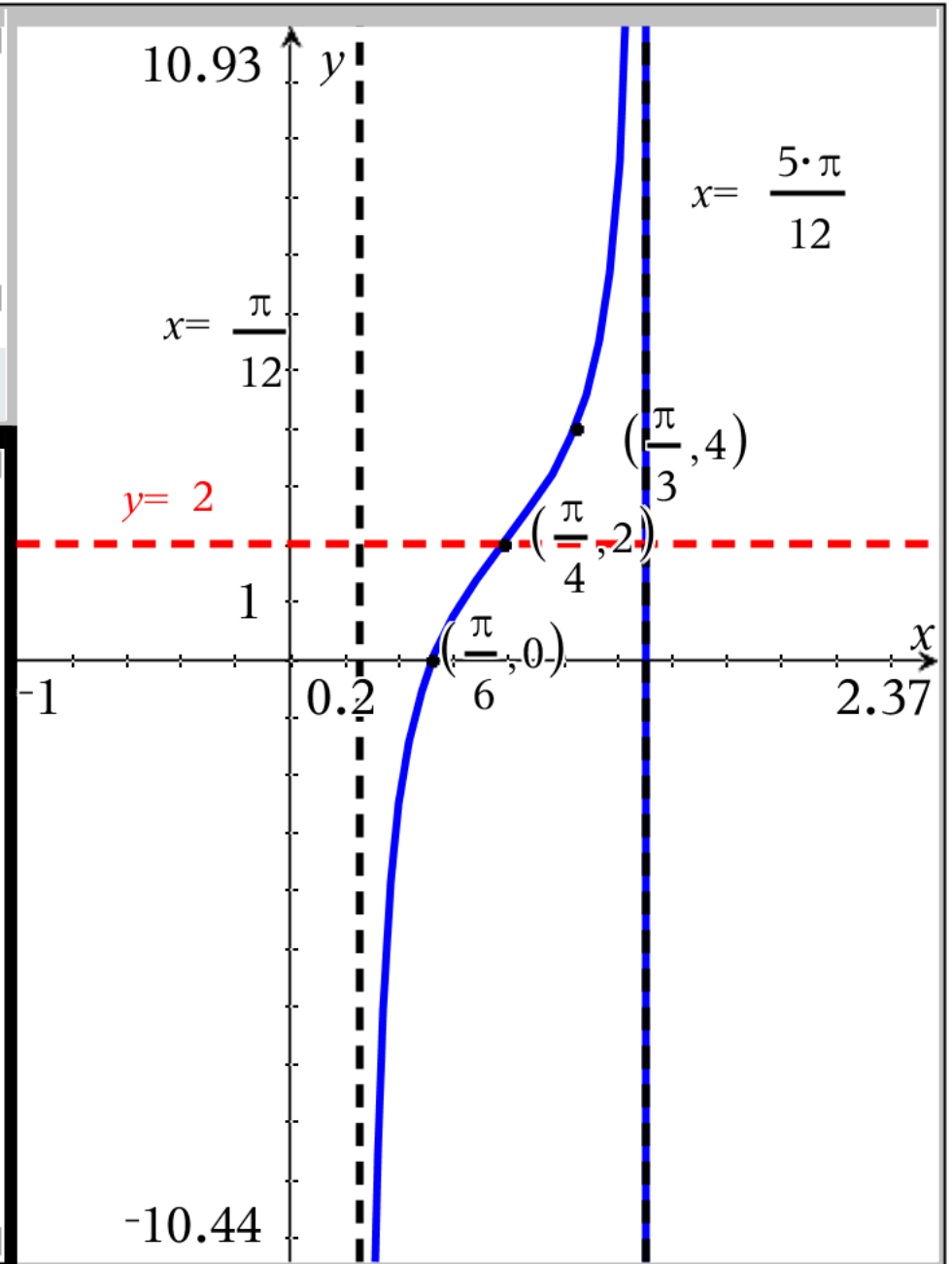


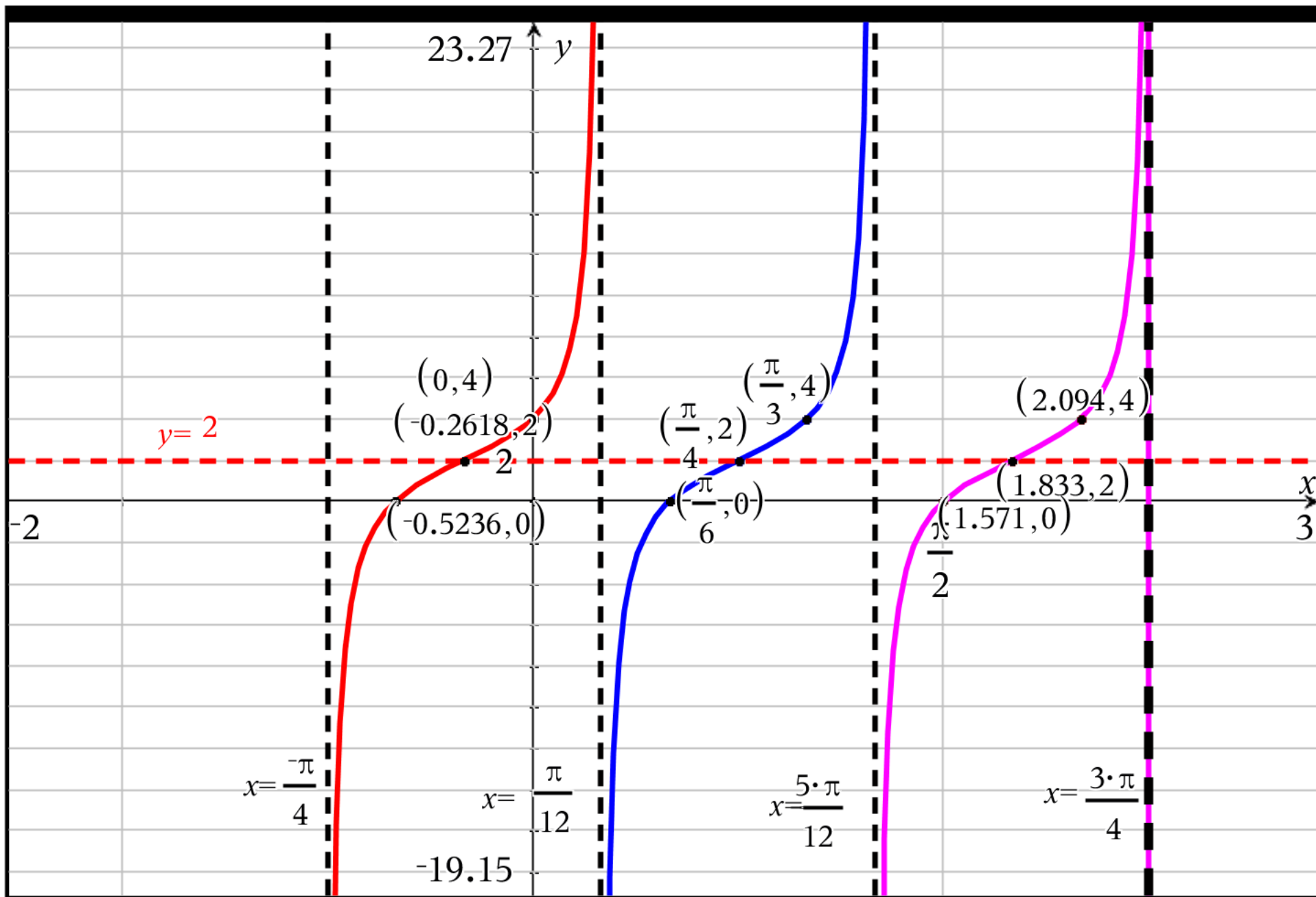


cotangent transformations 1

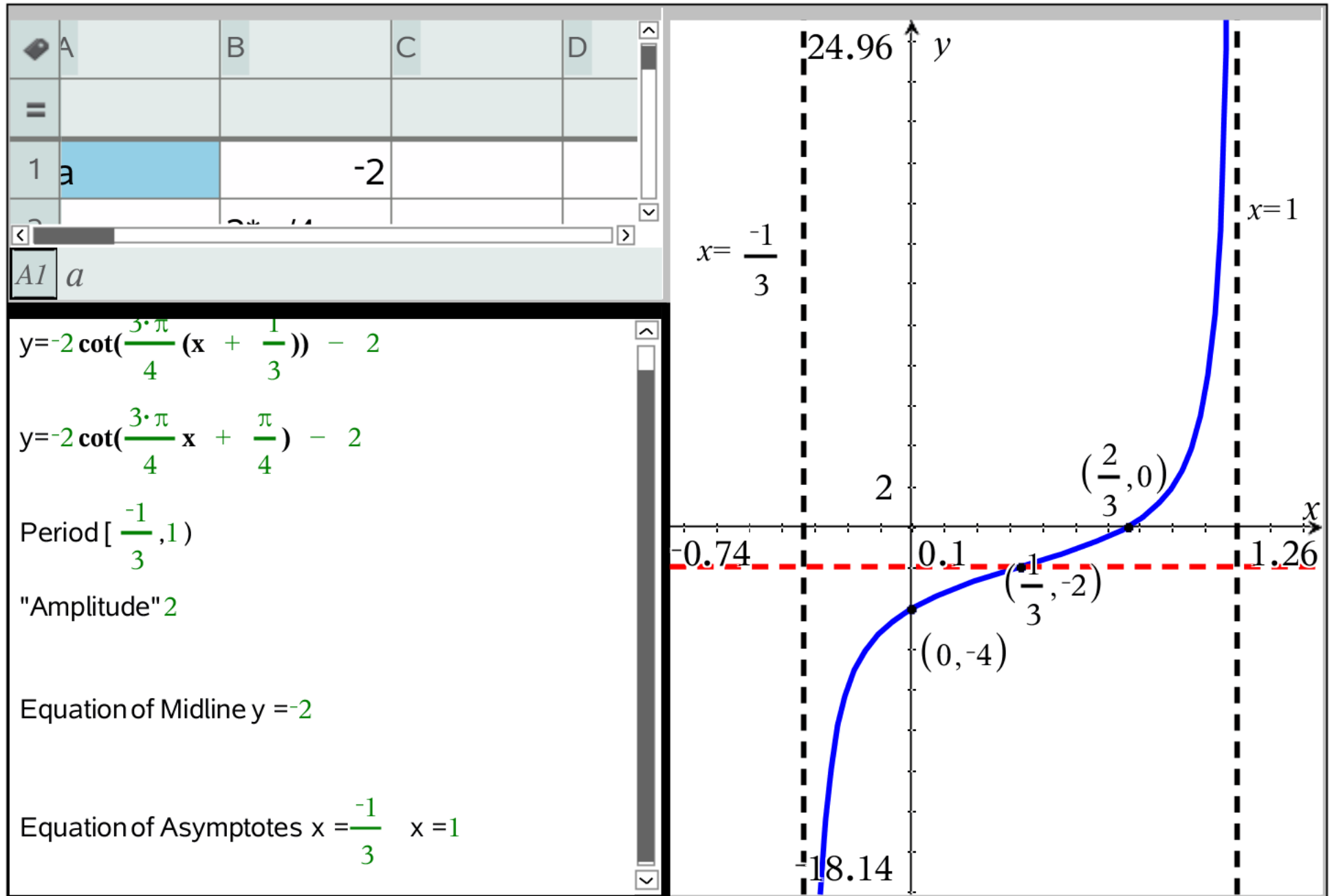
A	B	C	D
=			
1 a		-2	
A1 a			

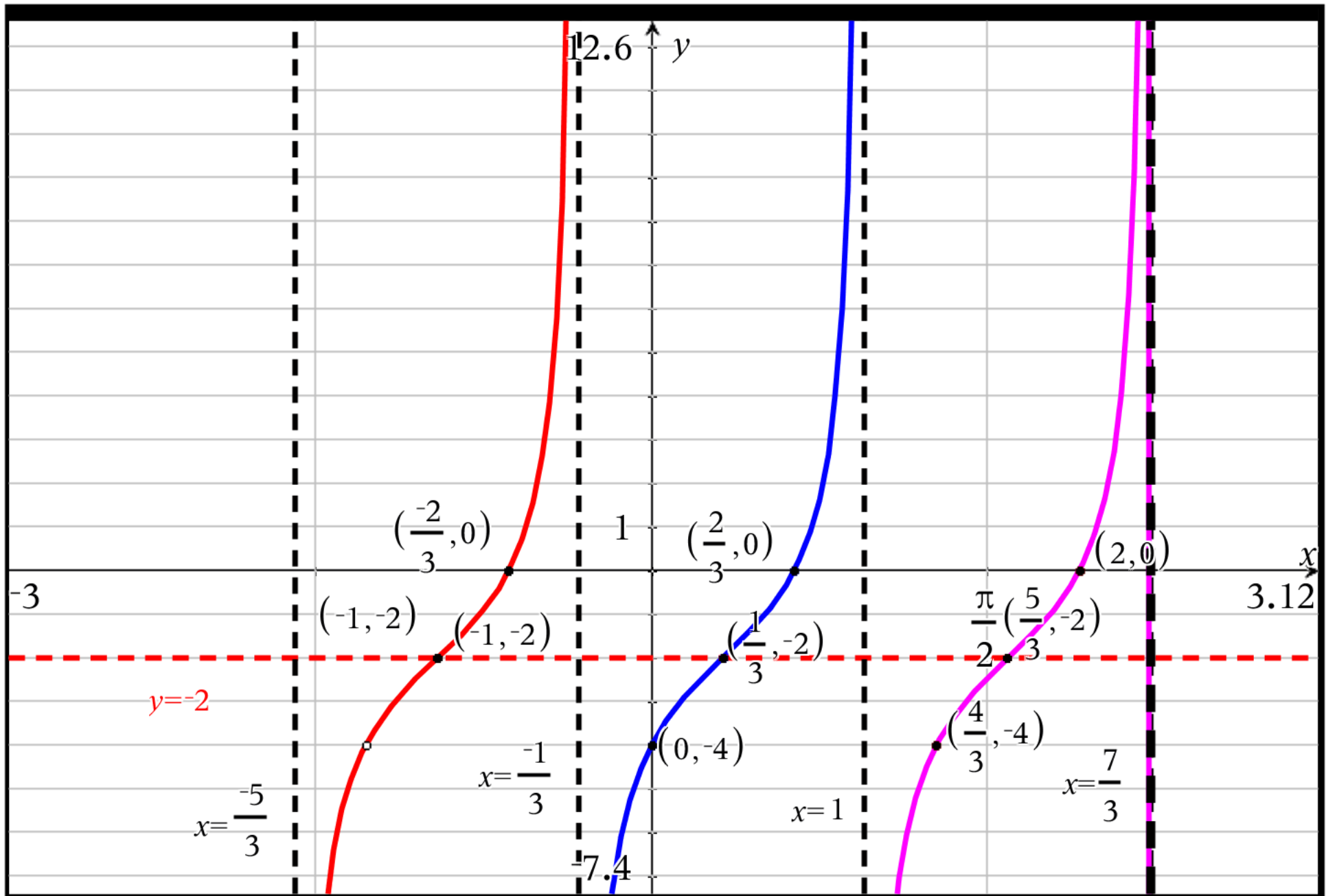
$y = -2 \cot\left(3\left(x - \frac{\pi}{12}\right)\right) + 2$
 $y = -2 \cot\left(3x - \frac{\pi}{4}\right) + 2$
 Period $\left(\frac{\pi}{12}, \frac{5\pi}{12}\right)$
 "Amplitude" 2
 Equation of Midline $y = 2$
 Equation of Asymptotes $x = \frac{\pi}{12}$ $x = \frac{5\pi}{12}$





cotangent transformations 2





tangent transformations 3

	A	B	C	D
=				
1	a	18/5		
2	b	$-\pi/8$		
3	c	$-11\pi/8$		

A1 a

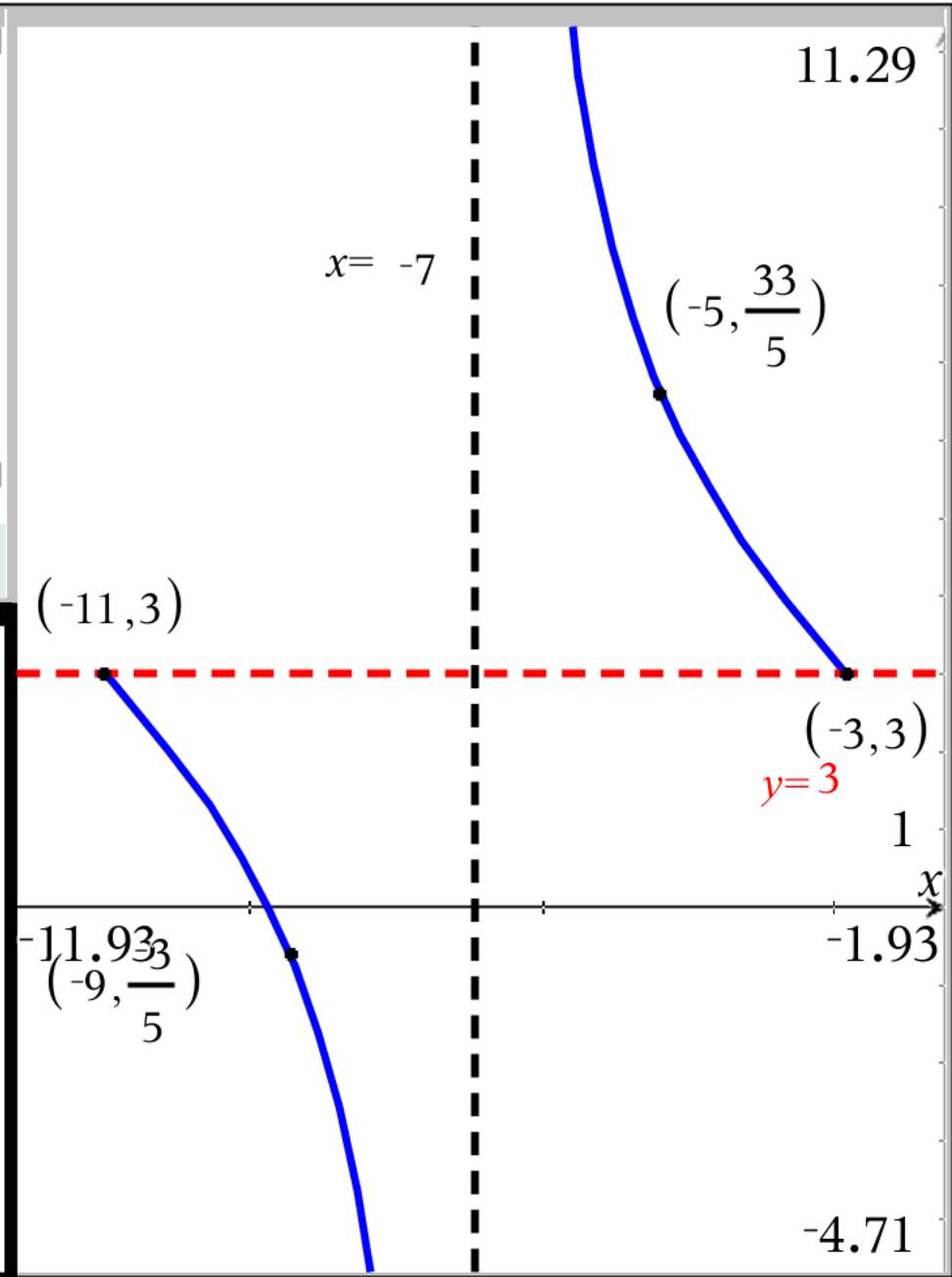
$$y = \frac{18}{5} \tan\left(\frac{-\pi}{8}(x + 11)\right) + 3$$

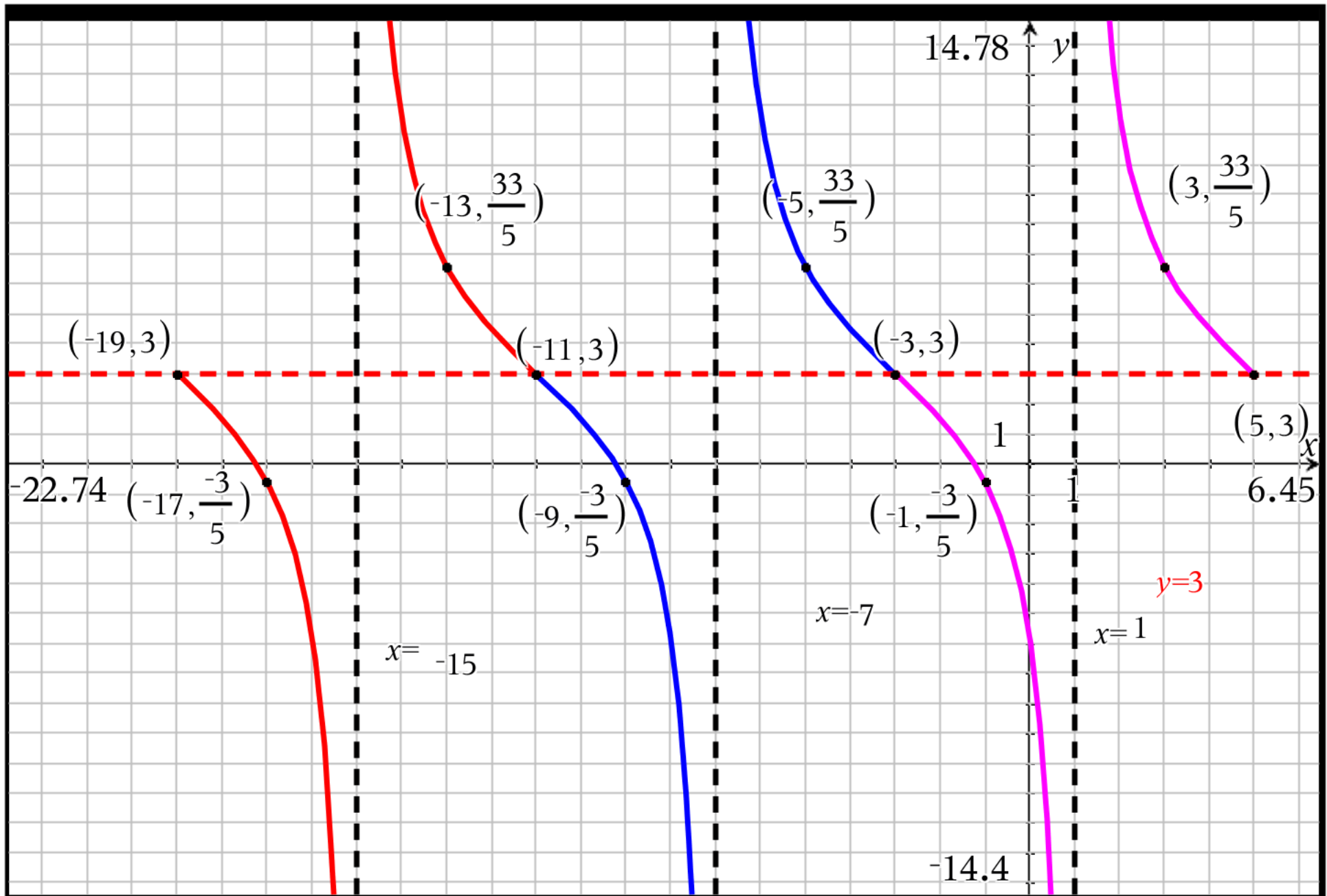
$$y = \frac{18}{5} \tan\left(\frac{-\pi}{8}x - \frac{11\pi}{8}\right) + 3$$

Period $[-11, -3)$ Amplitude $\frac{18}{5}$

Equation of Midline $y = 3$

Equation of Asymptote $x = -7$





cotangent transformations 3

A	B	C	D
=			
1 a		-3/4	
A1	a		

$$y = \frac{-3}{4} \cot\left(\frac{1}{14}(x + 8 \cdot \pi)\right) + 3$$

$$y = \frac{-3}{4} \cot\left(\frac{1}{14}x + \frac{4 \cdot \pi}{7}\right) + 3$$

Period $[-8 \cdot \pi, 6 \cdot \pi)$

"Amplitude" $\frac{3}{4}$

Equation of Midline $y = 3$

Equation of Asymptotes $x = -8 \cdot \pi$ $x = 6 \cdot \pi$

