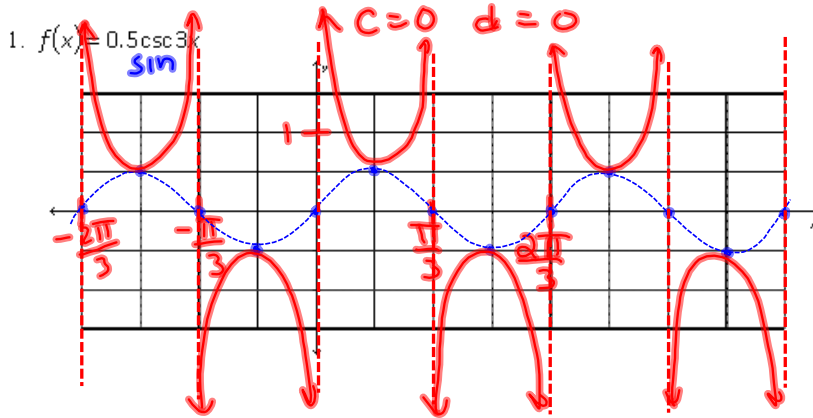
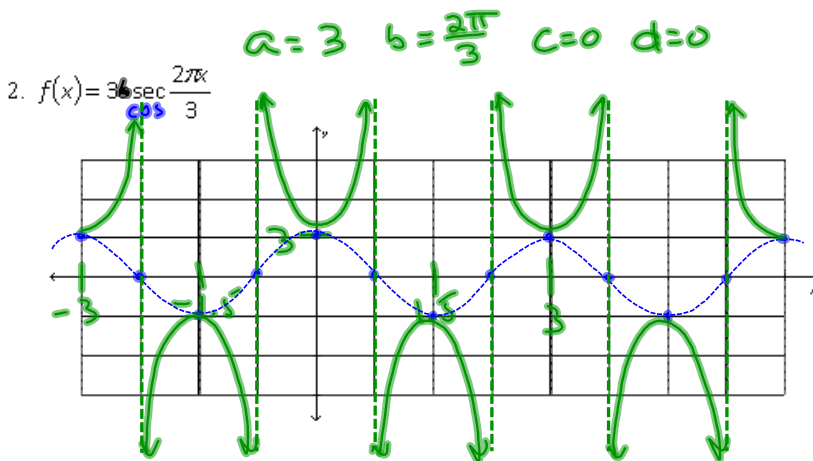


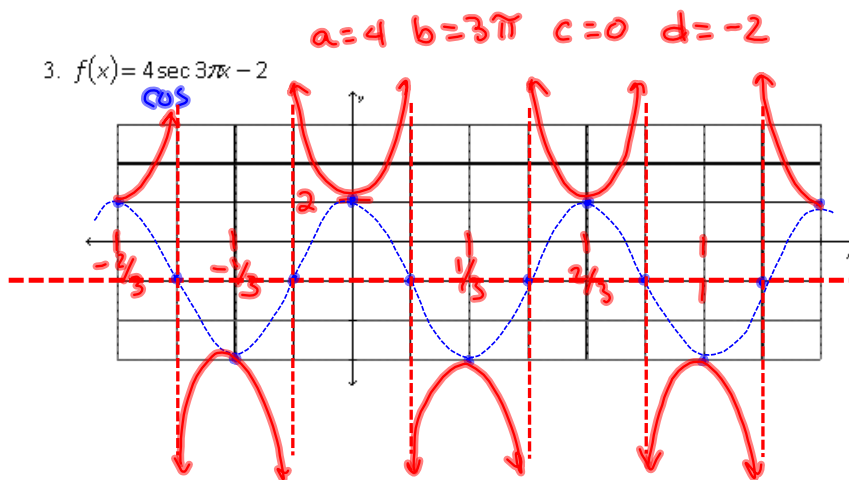
Graphing Cosecant and Secant #1  $a=0.5$   $b=3$



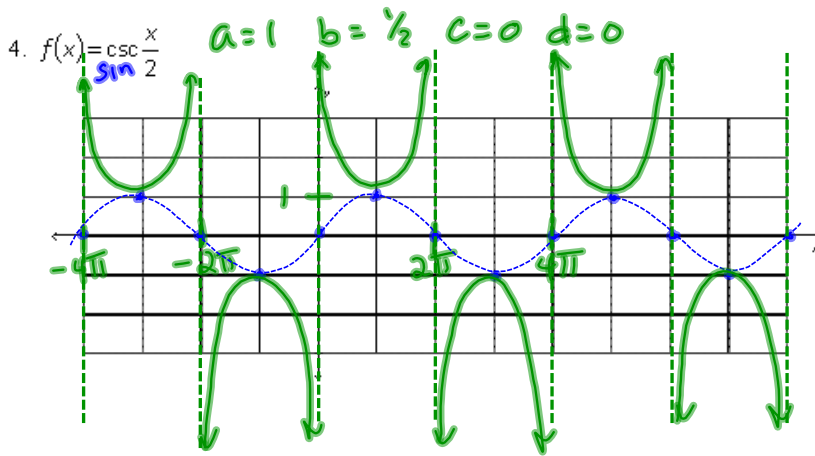
$|a| = 0.5$   
 Period =  $\frac{2\pi}{3}$   
 Frequency =  $\frac{3}{2\pi}$   
 Vertical Shift: NONE  
 Phase shift: NONE



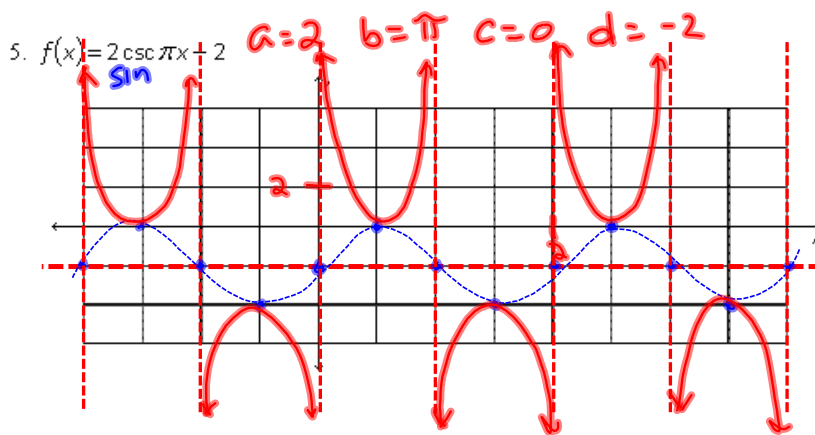
$|a| = 3$   
 Period =  $\frac{2\pi}{2\pi/3} = 3$   
 Frequency =  $\frac{1}{3}$   
 Vertical Shift: NONE  
 Phase shift: NONE



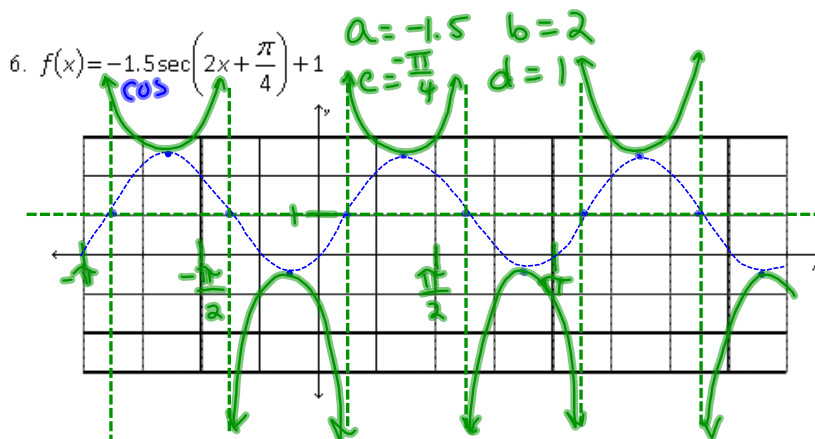
$|a| = 4$   
 Period =  $\frac{2\pi}{3\pi} = \frac{2}{3}$   
 Frequency =  $\frac{3}{2}$   
 Vertical Shift:  $\downarrow 2$   
 Phase shift: NONE



$|a| = 1$   
 Period =  $\frac{2\pi}{\frac{1}{2}} = 4\pi$   
 Frequency =  $\frac{1}{4\pi}$   
 Vertical Shift: NONE  
 Phase shift: NONE



$|a| = 2$   
 Period =  $\frac{2\pi}{\pi} = 2$   
 Frequency =  $\frac{1}{2}$   
 Vertical Shift:  $\downarrow 2$   
 Asymptotes: PHASE SHIFT  
 NONE



$|a| = 1.5$   
 Period =  $\frac{2\pi}{2} = \pi$   
 Frequency =  $\frac{1}{\pi}$   
 Vertical Shift:  $\uparrow 1$   
 Phase shift:  $\frac{\frac{\pi}{4}}{2} = \frac{\pi}{8} \leftarrow$

