

Precalculus A

4.4 Graphing the Sine and Cosine Functions

Day 4

Hw: Assignment #10 and Study for Quiz

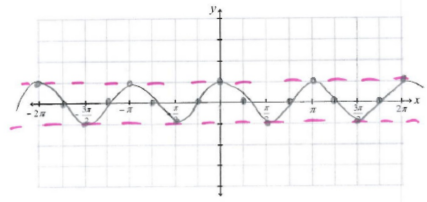
D. Paulson

1. $y = \cos(2x)$

Amplitude: 1

Period: $\frac{2\pi}{2} = \pi$

Step: $\frac{\pi}{4}$

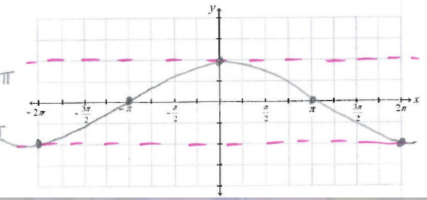


2. $y = 2 \cos(\frac{1}{2}x)$

Amplitude: 2

Period: $\frac{2\pi}{\frac{1}{2}} = 4\pi$

Step: $\frac{4\pi}{4} = \pi$



D. Paulson

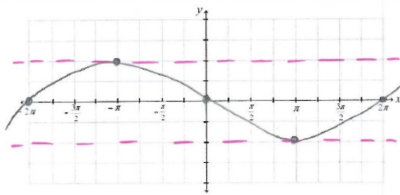
3. $y = -2 \sin(\frac{1}{2}x)$

Amplitude: 2

Period: $\frac{2\pi}{\frac{1}{2}} = 4\pi$

Step: $\frac{4\pi}{4} = \pi$

Reflected



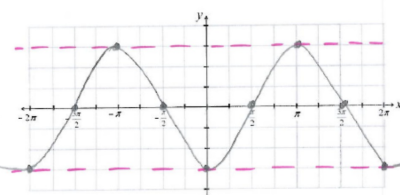
4. $y = -3 \cos(x)$

Amplitude: 3

Period: 2π

Step: $\frac{2\pi}{4} = \frac{\pi}{2}$

Reflected



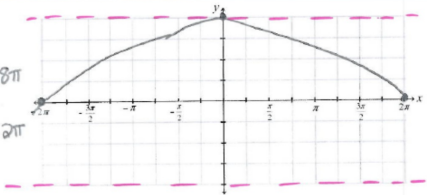
D. Paulson

5. $y = 4 \cos(\frac{1}{4}x)$

Amplitude: 4

Period: $\frac{2\pi}{\frac{1}{4}} = 8\pi$

Step: $\frac{8\pi}{4} = 2\pi$

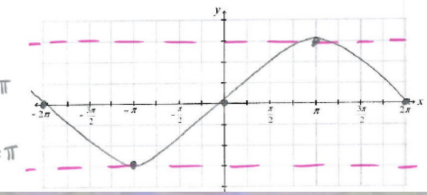


6. $y = 3 \sin(\frac{1}{2}x)$

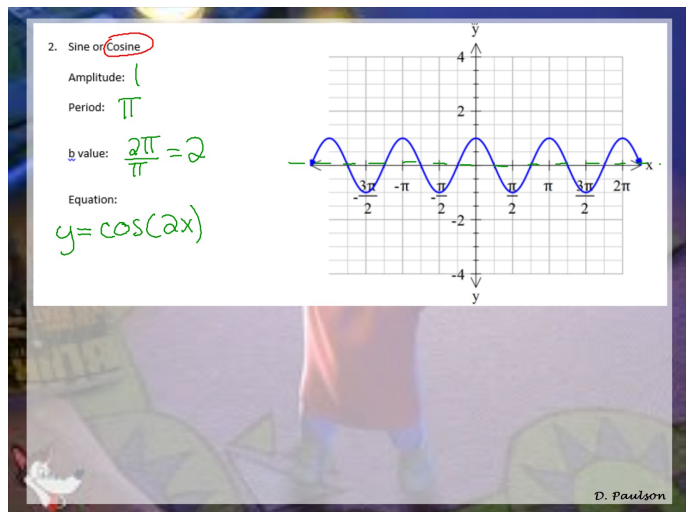
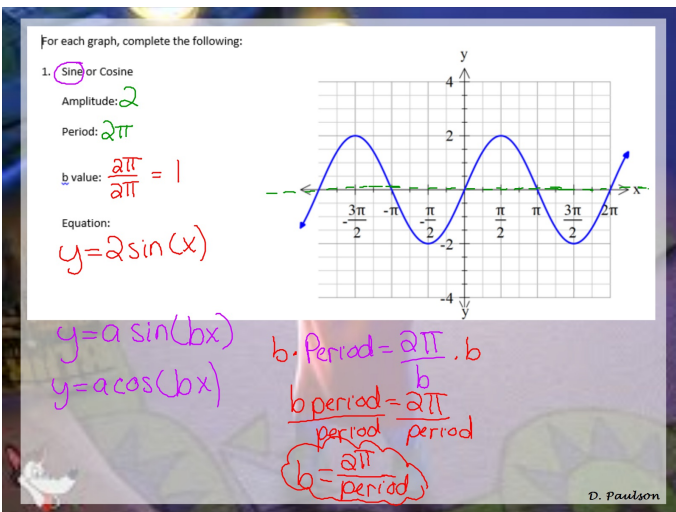
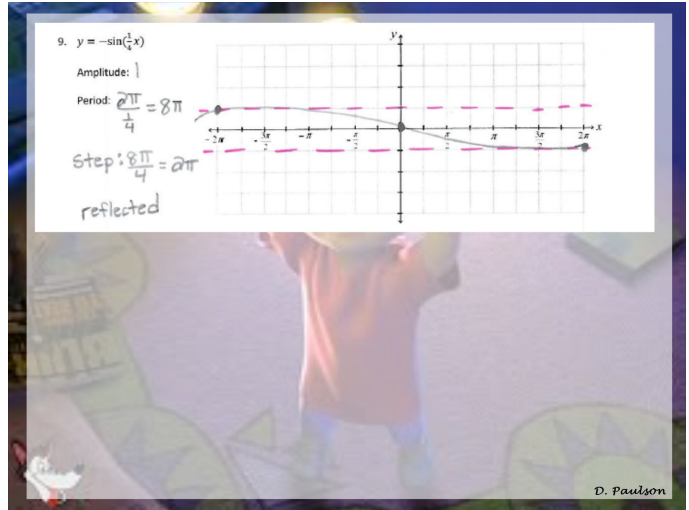
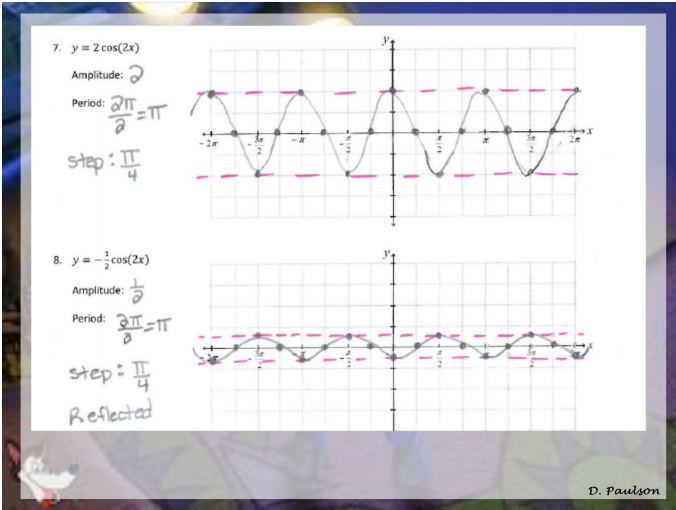
Amplitude: 3

Period: $\frac{2\pi}{\frac{1}{2}} = 4\pi$

Step: $\frac{4\pi}{4} = \pi$



D. Paulson



3. Sine or Cosine

Amplitude: 3

Period: 8π

b value: $\frac{2\pi}{8\pi} = \frac{1}{4}$

Equation:

$$y = 3\sin\left(\frac{1}{4}x\right)$$

