


1.



Apparently children can solve this in less than 20 seconds.

Adults struggle with it: What is the number under the parked car?

Don't spoil it by giving away the answer.

2.

Can you find **the**  
**the** mistake?

1111 2222 3333 4444  
5555 6666 7777 8888  
9999 0000

3. What is your favorite movie?

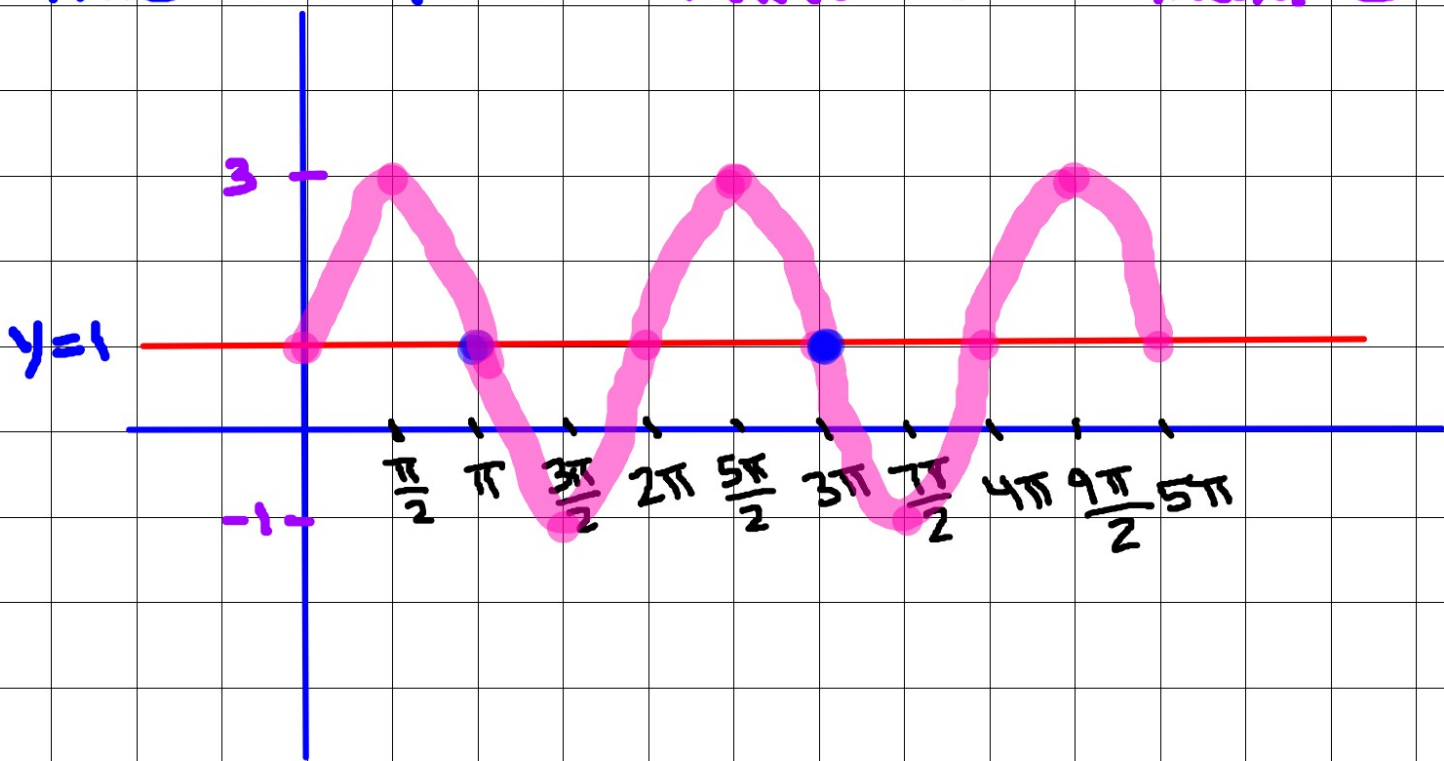
Ex:

$$y = -2 \sin(x - \pi) + 1$$

right  $\pi$

amp: 2    reflected over x-axis    up 1

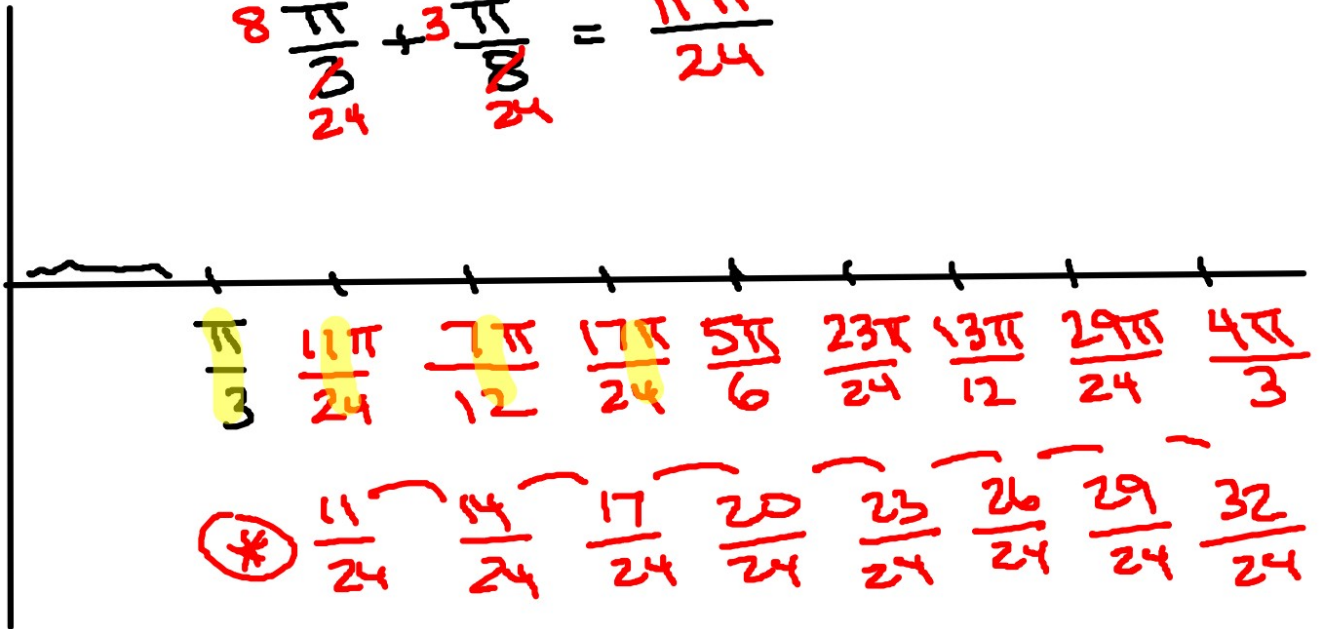
midline  $y = 1$     min: -1    max: 3



Ex:  $y = 4 \cos\left(4x - \frac{\pi}{3}\right) + 2$  right

\* Period:  $\frac{2\pi}{b} = \frac{2\pi}{4} = \frac{\pi}{2}$  \*Period  $\frac{\pi}{4}$

$\frac{8\pi}{24} + \frac{3\pi}{24} = \frac{11\pi}{24}$



\* To get the interval for the tick marks multiple period ( $\frac{1}{4}$ ).

$$y = -5 \cos\left(3x - \frac{\pi}{4}\right) + 1$$

right  $\Rightarrow = \frac{\pi}{4}$

+ 1

period:  $\frac{2\pi}{3}$

a = 5

\* tick marks every:  $\frac{\pi}{6}$

