

LTAASB

How do I write equations from
Statements or Graphs?

3/16/17

$$\text{Period} = \frac{\pi}{b} \rightarrow \text{radians}$$

$$P = \frac{2\pi}{b}$$

$$\frac{\pi}{b} \times \frac{2\pi}{b}$$

$$\cancel{\pi} b = 12 \cancel{\pi}$$

$$b = 12$$

$$\text{Period} = 1440^\circ$$

$$P = \frac{360}{b}$$

$$b \cdot 1440 = \frac{360}{b} \cdot b$$

$$\frac{1440b}{1440} = \frac{360}{1440}$$

$$b = \frac{1}{4}$$

1. Identify Sine or Cosine
 at ~~zero~~ zero (origin) \downarrow midline \downarrow maximum

$k=3$
 $a=5$

2. midline = middle

3. amplitude p = distance from midline to max
 or min

4. Period - solve for b

\downarrow Period	<u>Sin</u>	<u>-sin</u>	<u>Cosine</u>
	mid	mid	max
	max	min	mid
	mid	mid	min
	min	max	mid
	mid	mid	max

$$p = \frac{2\pi}{b}$$

$$\pi = \frac{2\pi}{b}$$

$$\pi b = 2\pi$$

$$b = 2$$

$$y = 5 \sin(2x) - 3$$

$$y = a \sin(bx) + k$$