

## Ratio Quiz (Answer Key)

Name: \_\_\_\_\_

1. Solve for the b in the equation  $10 = 2\pi/b$

$$1/10 = b/2\pi$$

$$b = 20\pi$$

2. Set up the sine equation for the value you previously solved for in question 1. Hint:  $y = \sin(bx)$

$$Y = \sin(bx)$$

$$Y = \sin(20\pi x)$$

3. You are given that the frequency is 1/period, what is the b value for  $y = \sin(bx)$  produced by frequency of the A = 440HZ on a piano?

$$\text{Frequency} = 1/\text{period}$$

$$\text{Frequency} = 1/2\pi/b$$

$$\text{Frequency} = b/2\pi$$

$$440 = b/2\pi$$

$$440(2\pi) = b$$