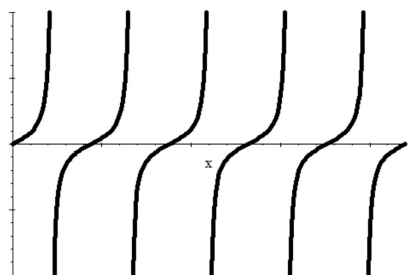


Bellwork Tuesday, June 10, 2014

1. Write the equation of this function.
The window is 0 to 7π .



$$\text{period} = \frac{7\pi}{5}$$

$$y = \text{Tan} \frac{5}{7}x$$

$$b = \frac{\pi}{\text{period}}$$

$$\frac{\pi}{\frac{7\pi}{5}} = \frac{5}{7}$$

Find the exact value of each.

2. $\text{Tan} \frac{19\pi}{6}$

$$\text{Tan} \frac{7\pi}{6} = -\frac{\sqrt{3}}{3}$$

3. $\text{Cos}(-1050^\circ) = \text{Cos} 30^\circ$

$$\frac{\sqrt{3}}{2}$$

4. $\text{Sin} 42\pi = 0$

5. $\text{Tan} \frac{47\pi}{4} = \text{Tan} \frac{7\pi}{4}$

$$= -1$$

Rationalize each denominator.

6. $\frac{18m}{\sqrt[4]{3m^2n^3p}} \cdot \frac{\sqrt[4]{3^3m^2np^3}}{\sqrt[4]{3^3m^2np^3}} = \frac{18m\sqrt[4]{3^3m^2np^3}}{3mnp}$

$$\frac{6\sqrt[4]{3^3m^2np^3}}{np}$$

$$\sqrt[4]{3^4m^4n^4p^4}$$

7. $\frac{12}{5 - \sqrt{7}} \cdot \frac{5 + \sqrt{7}}{5 + \sqrt{7}} = \frac{12(5 + \sqrt{7})}{18}$

$$\frac{2(5 + \sqrt{7})}{3}$$

$$a^2 - b^2$$

$$25 - 7$$

8. Solve.

$$\sqrt{34-x} + 4 = x$$

$$(\sqrt{34-x})^2 = (x-4)^2$$

$$34-x = x^2 - 8x + 16$$

$$x = 9, -1$$

$$0 = x^2 - 7x - 18$$

$$0 = (x-9)(x+2)$$

9. What percent change does each exponential function represent?

a. $y = 927(0.9013)^x$

b. $y = 5(1.04102)^x$

$$90.13\% \rightarrow 9.87\% \text{ dec}$$

$$104.102\% \rightarrow 4.102\% \text{ inc}$$

10. Match each equation with its graph.

D a) $y = 3(2.5)^x$ B b) $y = 5(0.4)^x$ C c) $y = 3(6)^x$

A d) $5(0.82)^x$ E e) $y = (2.5)^x$

