

Key Concept #1

+

$$x - \frac{1}{7} = \sqrt{2}$$

$$+ \frac{1}{7} \quad + \frac{1}{7}$$

$$x = \sqrt{2} + \frac{1}{7}$$

-

$$x + \pi = e$$

$$- \pi \quad - \pi$$

$$x = e - \pi$$

o/a

$$\left(\frac{3}{11}\right)x = \frac{5}{6}$$

$$\left(\frac{3}{11}\right) \quad \left(\frac{3}{11}\right)$$

$$x = \left(\frac{5}{6}\right)\left(\frac{11}{3}\right) = \frac{55}{18} = 3 \frac{1}{18}$$

x

$$\frac{x}{(\tan 13^\circ)} = (\sin 14^\circ)$$

$$\frac{(\tan 13^\circ) x}{(\tan 13^\circ)} = (\tan 13^\circ)(\sin 14^\circ)$$

$$x = (\tan 13^\circ)(\sin 14^\circ)$$

distribute
first
+/-
divide

$$\log_3 5 (x + \log_2 7) = \log_{11} 13$$

$$x \log_3 5 + (\log_3 5)(\log_2 7) = (\log_{11} 13)$$

$$x = (\log_{11} 13) - (\log_3 5)(\log_2 7) / \log_3 5$$

Key Concept #1 (Cont.)
Lastly, how do you solve for $2^x = 29$?

NOTE: Can be any real #!

x

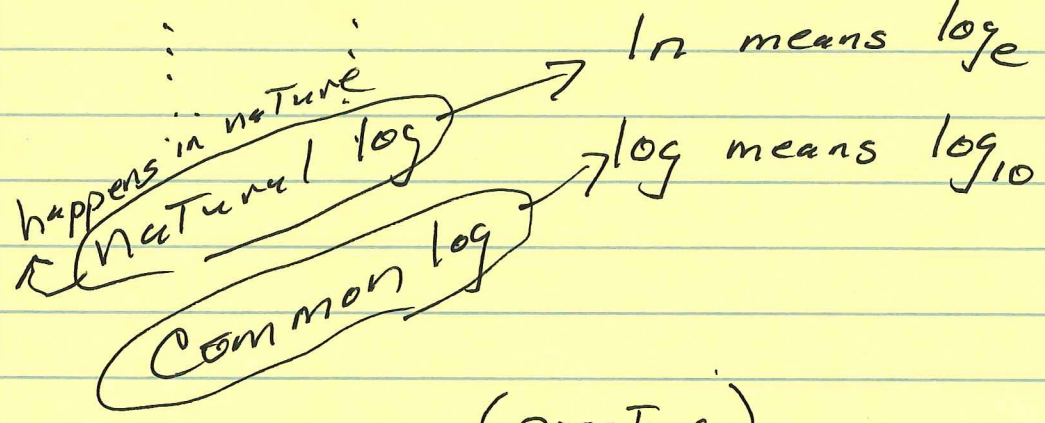
$$10^2 = 100$$
$$2 = \text{LOG}_{10} 100$$

- $2^0 = 1$
- $2^1 = 2$
- $2^2 = 4$
- $2^3 = 8$
- $2^4 = 16$
- $2^5 = 32$
- $2^6 = 64$
- $2^7 = 128$
- $2^8 = 256$

$$2^x = 29$$

$$x = \log_2 29$$

$$x = \frac{\ln 29}{\ln 2} = \frac{\log 29}{\log 2}$$



(practice)

On my cell phone I am playing an endless mode of 2048 game.
My highest cell is 65536

2048 is what power of 2?
65536 is what power of 2? (DO IN CLASS)