

ORDERS OF MAGNITUDE

PUPIN PHYSICS LABORATORIES



QUESTION OF THE DAY

What is Order of Magnitude? How it is relate to the statement below: $\log (\quad ? \quad) = ?$

Do Now (Via Peer Scaffolding)

Q1

$$10^{-.5} \approx 3.16228$$

$$10^{1.5} \approx$$

Q2

$$\log (3.16228) = .5$$

$$\log (31.62277) =$$

$$\log (?) = ?$$

Q3. What did you discover?

Do Now (Via Peer Scaffolding)

Q4

Number	Log	Power of 10	Order of Magnitude
30	$\log(30) = 1.477$	$30 = 10^{1.477}$	1
31.7			
40			

Q5 What did you discover? (What question led you to the discovery?)

Find the orders of Magnitude of following

Q6

- 1. 2000**
- 2. 9000**
- 3. .0002**
- 4. .0009**

Q7

Why are orders of magnitude useful?

BIG IDEA (Individually)

Value	SN	OM	Name	Log (b)	Log is an exponent
300000000					
5980000000000 000000000000					
7350000000000 0000000000					
0.000000000000 000000000000 00000000663					
0.000000000000 000000000000 0167					