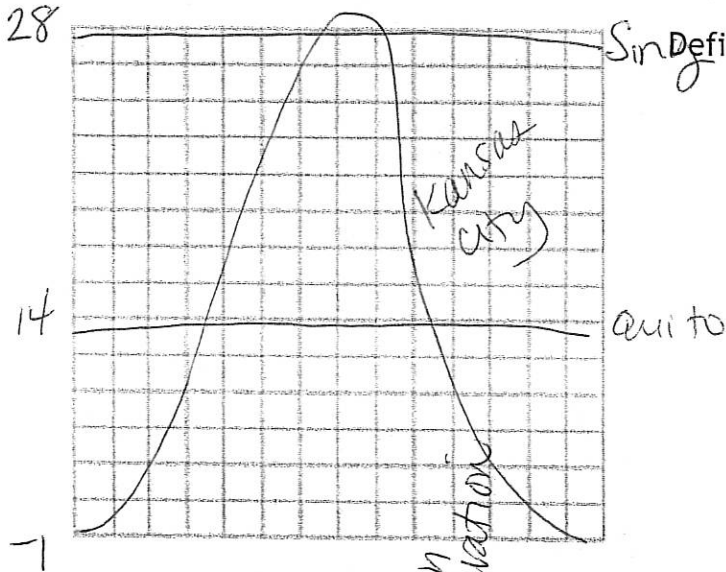


Warmup: What causes the difference in temperature between Singapore at 3 m and 2°N and Quito at 2850 m and 0°? Draw a sample graph on the white board. When you are corrected then draw the sample graph below.

Set up a graph and plot temperature data using different color for each city to eliminate confusion.

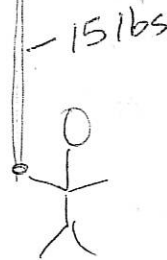
City	Singapore, Singapore	Quito, Ecuador	Kansas City, Missouri	Denver, Colorado	Mexico City, Mexico	Vera Cruz, Mexico
Latitude	2°N	0°	39°N	40°N	19°N	18°N
Altitude	3 m	2850 m	229 m	1610 m	2290 m	3 m
January	27°C	13°C	-1°C	-1°C	12°C	21°C
February	27°C	13°C	2°C	1°C	13°C	23°C
March	27°C	13°C	7°C	4°C	14°C	24°C
April	28°C	13°C	13°C	9°C	16°C	25°C
May	28°C	13°C	18°C	14°C	18°C	26°C
June	28°C	13°C	24°C	19°C	18°C	27°C
July	28°C	13°C	27°C	23°C	18°C	27°C
August	28°C	13°C	26°C	22°C	17°C	27°C
September	27°C	13°C	22°C	18°C	16°C	26°C
October	27°C	13°C	18°C	12°C	14°C	25°C
November	27°C	12°C	7°C	5°C	13°C	24°C
December	27°C	13°C	1°C	1°C	12°C	23°C
January	27°C	13°C	-1°C	-1°C	12°C	21°C

Range = $hi - low$ 10 28
 $-1°C - 27°C$

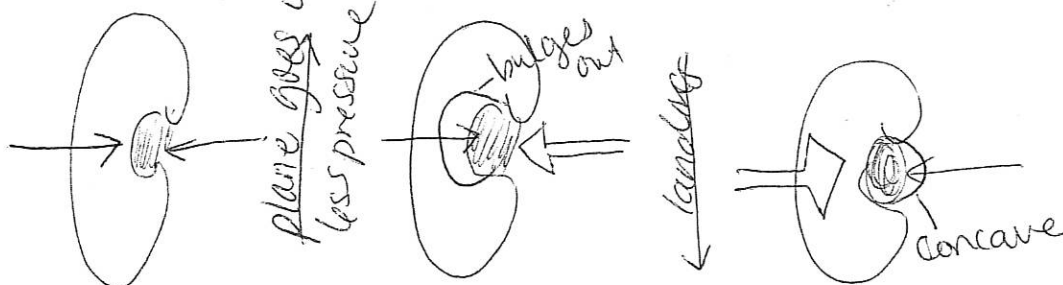


Define Barometric pressure:

Force per unit area exerted by the air above that area



Relate what you know about air pressure and your ears popping during take off or landing.



O 8 - atomic # - ~~atomic~~ # of protons
 O 16 - atomic mass = # of protons + # of neutrons
 O 16 amu = atomic mass unit
 Calculate the mass for compounds in the air

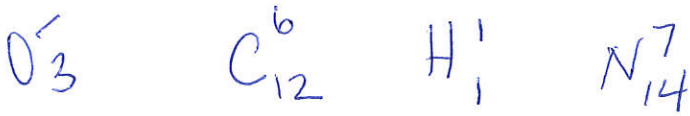
	High Pressure	Low Pressure
High water concentration		✓
Low water concentration	✓	
High density	✓	
Low density		✓
High Temperatures	✓	✓
Low temperatures		✓
High Altitude		✓
Low altitude	✓	

$CO_2 = 12 + 16 + 16 = \underline{44 \text{ amu}}$

$H_2O = 1 + 1 + 16 = \underline{18 \text{ amu}}$

$O_2 = 16 + 16 = \underline{32 \text{ amu}}$

$N_2 = 14 + 14 = \underline{28 \text{ amu}}$



Units for Pressure:

_____ atm = _____ kPa = _____ mm Hg = _____ = _____ millibars

Describe the weather associated with High and Low pressure systems:

High clear sunny Bright blue	Low humid conditions haze clouds fog Rain
Explain O_2 CO_2 N_2 "weigh" more than H_2O	Explain H_2O weighs less

Draw a diagram of a barometer and explain how it works:

