

Name \_\_\_\_\_ Period \_\_\_\_\_

College Prep Chemistry of the Earth

Assignment 7C – Pressure Conversions

20 Points

Convert the following volume and pressure units to their new values based on the conversion factors provided.

Pressure Conversions

Conversion Factors	1 atm = 760 mmHg = 760 torr = 101.3 kPa = 14.7 psi
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Convert <del>2.48 atm Br<sub>2</sub>(g)</del> to <del>mmHg Br<sub>2</sub>(g)</del>	
2.48 <del>atm Br<sub>2</sub></del>	760 <del>mmHg Br<sub>2</sub></del>
	<del>atm Br<sub>2</sub></del>
mmHg Br <sub>2</sub> (g) =	1884.8 mmHg Br <sub>2</sub>

$$= \frac{2.48 \times 760}{1} = 1884.8 \text{ rounded to "1"}$$

Convert 1540.39 mmHg SO <sub>3</sub> (g) to atm SO <sub>3</sub> (g)	
atm SO <sub>3</sub> (g) =	

Convert 4.28 atm CH <sub>4</sub> (g) to kPa CH <sub>4</sub> (g)	
kPa CH <sub>4</sub> (g) =	

Convert 482.48 kPa C <sub>2</sub> H <sub>4</sub> (g) to atm C <sub>2</sub> H <sub>4</sub> (g)	
atm C <sub>2</sub> H <sub>4</sub> (g) =	

Convert 8.28 atm F <sub>2</sub> (g) to psi F <sub>2</sub> (g)	
psi F <sub>2</sub> (g) =	

Convert 52.49 psi O <sub>2</sub> (g) to atm O <sub>2</sub> (g)	
atm O <sub>2</sub> (g) =	

Convert 913.29 mmHg Cl <sub>2</sub> (g) to kPa Cl <sub>2</sub> (g)	
913.29 mmHg Cl <sub>2</sub>	101.3 kPa Cl <sub>2</sub>
	760 mmHg Cl <sub>2</sub>
kPa Cl <sub>2</sub> (g) =	121.73 kPa Cl <sub>2</sub>

$$\frac{913.29 \times 101.3}{760} = 121.7319 \dots \text{ (2)}$$

Convert 205.48 kPa NO <sub>3</sub> (g) to mmHg NO <sub>3</sub> (g)	
mmHg NO <sub>3</sub> (g) =	