

13-1 PRESSURE CONVERSIONS

$$1.) \frac{738 \text{ mmHg}}{760 \text{ mmHg}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right. = \boxed{0.971 \text{ atm}} \quad (0.971052)$$

$$2.) \frac{32.0 \text{ psi}}{14.7 \text{ psi}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right. = \boxed{2.18 \text{ atm}} \quad (2.17687)$$

$$3.) \frac{380 \text{ torr}}{760 \text{ torr}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right| \left| \frac{101300 \text{ Pa}}{1 \text{ atm}} \right. = \boxed{51000 \text{ Pa}} \quad (50650)$$

$$4.) \frac{2.38 \text{ atm}}{1 \text{ atm}} \left| \frac{101.3 \text{ kPa}}{1 \text{ atm}} \right. = \boxed{241 \text{ kPa}} \quad (241.094)$$

$$5.) \frac{748 \text{ mmHg}}{760 \text{ mmHg}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right| \left| \frac{760 \text{ torr}}{760 \text{ torr}} \right. = \boxed{748 \text{ torr}}$$

$$\frac{748 \text{ torr}}{760 \text{ torr}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right. = \boxed{0.984 \text{ atm}} \quad (0.984210)$$

$$6.) \frac{90 \text{ psi}}{14.7 \text{ psi}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right| \left| \frac{101.3 \text{ kPa}}{1 \text{ atm}} \right. = \boxed{600 \text{ kPa}} \quad (620.204)$$

$$7.) \frac{25000 \text{ kPa}}{101.3 \text{ kPa}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right| \left| \frac{760 \text{ mmHg}}{1 \text{ atm}} \right. = \boxed{190000 \text{ mmHg}} \quad (187561)$$

$$8.) \frac{1200 \text{ psi}}{14.7 \text{ psi}} \left| \frac{1 \text{ atm}}{1 \text{ atm}} \right| \left| \frac{760 \text{ torr}}{760 \text{ torr}} \right. = \boxed{62000 \text{ torr}} \quad (62040.8)$$

$$9.) \frac{56.5 \text{ cmHg}}{1 \text{ cmHg}} \left| \frac{10 \text{ mmHg}}{1 \text{ cmHg}} \right| \left| \frac{1 \text{ atm}}{760 \text{ mmHg}} \right. = \boxed{0.743 \text{ atm}} \quad (0.743421)$$

$$10.) \frac{74 \text{ in Hg}}{1 \text{ in Hg}} \left| \frac{2.54 \text{ cmHg}}{1 \text{ in Hg}} \right| \left| \frac{10 \text{ mmHg}}{1 \text{ cmHg}} \right| \left| \frac{1 \text{ atm}}{760 \text{ mmHg}} \right| \left| \frac{101300 \text{ Pa}}{1 \text{ atm}} \right. = \boxed{250000 \text{ Pa}} \quad (250530)$$