

## 18.3: The Universal Gas Constant

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If you had an ideal gas, all you would have to do is to measure its pressure, its temperature, and the volume occupied by a mole, for then  $PV = RT$ . (Measuring  $P$  and  $T$  is relatively easy. Measuring the volume occupied by a mole is less so.) In real life, however, we have to make measurements on real gases. What has to be done is to measure the product  $PV$  (at a given temperature) at progressively lower and lower pressures, and extrapolate the value of  $PV/T$  to the limit of zero pressure. (See notes in Chapter 6 on the compression factor.)

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