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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Gas Laws

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  | 1C |  O |  M |  P |  R |  E |  S |  I |  B |  I |  L |  I |  T |  Y |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  | 2M |  O |  L |  A |  R |  V |  O |  L |  U |  M |  E |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  | 3P |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4I |  N | 5V |  E |  R |  S |  E |  R |  E |  L |  A |  T |  I |  O |  N |  S |  H |  I |  P |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  A |  |  |  |  |  |  |  |  S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  C |  |  |  |  |  |  |  |  C |  |  |  |  |  |  |  |  |  |  | 6A |  |  |  |  |  |  |
|  |  |  |  |  C |  |  | 7P |  A |  R |  T |  I |  A |  L |  P |  R |  E |  S |  S |  U |  R |  E |  |  V |  |  | 8A |  |  |  |
|  |  |  |  |  U |  |  |  |  |  |  |  |  L |  |  |  |  |  |  |  |  |  |  |  O |  |  |  V |  |  |  |
| 9D |  I |  F |  F |  U |  S |  I |  O |  N |  |  |  |  |  |  |  |  | 10G |  | 11D |  |  |  |  G |  |  |  O |  |  |  |
|  |  |  |  |  M |  |  |  |  |  |  |  |  |  |  | 12B |  |  A |  |  I |  |  |  |  A |  |  |  G |  |  |  |
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|  |  |  |  |  |  |  | 13A |  T |  M |  O |  S |  P |  H |  E |  R |  E |  P |  R |  E |  S |  S |  U |  R |  E |  |  D |  | 14I |  |
|  |  |  |  |  |  | 15E |  |  |  |  |  |  |  |  |  O |  |  R |  |  C |  |  |  |  O |  |  |  R |  |  D |  |
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|  |  |  |  |  |  |  F |  | 16V |  A |  P |  O |  R |  P |  R |  E |  S |  S |  U |  R |  E |  |  |  P |  |  |  S |  |  A |  |
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|  |  |  |  |  |  |  S |  |  |  |  |  | 18C |  |  |  E |  |  U |  |  L |  |  I |  |  I |  |  |  Y |  |  G |  |
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|  |  |  |  |  | 19B |  O |  Y |  L |  E |  S |  L |  A |  W |  |  |  |  E |  |  T |  |  E |  |  C |  |  |  O |  |  S |  |
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|  |  | 22C |  O |  M |  B |  I |  N |  E |  D |  G |  A |  S |  L |  A |  W |  |  |  |  S |  |  E |  |  E |  |  |  S |  |  S |  |
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|  |  |  |  |  | 23G |  A |  Y |  L |  U |  S |  S |  A |  C |  S |  L |  A |  W |  | 24I |  D |  E |  A |  L |  G |  A |  S |  L |  A |  W |
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|  |  |  |  |  |  |  |  |  | 25K |  I |  N |  E |  T |  I |  C |  T |  H |  E |  O |  R |  Y |  |  |  |  |  |  |  |  |

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| **Across****1.** D**2.** the volume occupied by one mole of ideal gas at STP. Its value is: 22.414 L mol¯1.**4.** Z**7.** N**9.** Z**13.** S**16.** E**19.** Boyle's law states that at constant temperature for a fixed mass, the absolute pressure and the volume of a gas are inversely proportional. **20.** The lowest temperature that is theoretically possible.**22.** When we put Boyle's law, Charles' law, and Gay-Lussac's law together, we come up with the **23.**  thermal expansion of gasses and the relationship between temperature, volume, and pressure.**24.** A physical law describing the relationship of the measurable properties of an ideal gas**25.** Z | **Down****3.** S**5.** S**6.** states that, "equal volumes of all gases, at the same temperature and pressure, have the same number of molecules"**8.** S**10.** S**11.** H**12.** A**14.** a physical constant which is featured in many fundamental equations in the physical sciences, such as the ideal gas law and the Nernst equation**15.** S**17.** S**18.** Charles's law is an experimental gas law that describes how gases tend to expand when heated.**21.** Molar |