

| NO:  | AVOGADRO CONSTANT-SET-1  |
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| 1    | <p>Benzene is a liquid with molecular formula <math>C_6H_6</math>.</p> <p>Ethene is a gas with molecular formula <math>C_2H_4</math>.</p> <p>Which statement is correct?</p> <p><b>A</b> 1 mole of benzene and 1 mole of ethene contain the same number of atoms.</p> <p><b>B</b> 1 mole of benzene and 1 mole of ethene both have a volume of <math>24\text{ dm}^3</math> at room temperature and pressure.</p> <p><b>C</b> Both benzene and ethene have the same empirical formula.</p> <p><b>D</b> The number of carbon atoms in 0.5 moles of ethene is equal to the Avogadro constant.</p> |
| Ms-1 | D  |
| 2    | <p>Which gas sample contains the smallest number of molecules?</p> <p><b>A</b> 4 g of helium</p> <p><b>B</b> 16 g of oxygen</p> <p><b>C</b> 28 g of carbon monoxide</p> <p><b>D</b> 28 g of nitrogen</p>   |
| Ms-2 | B  |