

NO:	RELATIVE MOLECULAR MASS-RELATIVE FORMULA MASS-RELATIVE ATOMIC MASS-SET-1															
1	<p>A sample of 16.0 g of a metal oxide, MO, is reduced to 12.8 g of the metal, M.</p> <p>What is the relative atomic mass, <math>A_r</math>, of M?</p> <p><b>A</b> 32                      <b>B</b> 64                      <b>C</b> 80                      <b>D</b> 128</p>															
2	<p>The relative atomic mass of oxygen is 16 and that of hydrogen is 1.</p> <p>This means that ... (i) ... of oxygen has the same mass as ... (ii) ... of hydrogen.</p> <p>Which words correctly complete the gaps?</p> <table border="1" data-bbox="272 793 894 1129"> <thead> <tr> <th></th> <th>gap (i)</th> <th>gap (ii)</th> </tr> </thead> <tbody> <tr> <td><b>A</b></td> <td>an atom</td> <td>thirty-two molecules</td> </tr> <tr> <td><b>B</b></td> <td>an atom</td> <td>eight molecules</td> </tr> <tr> <td><b>C</b></td> <td>a molecule</td> <td>sixteen atoms</td> </tr> <tr> <td><b>D</b></td> <td>a molecule</td> <td>eight atoms</td> </tr> </tbody> </table>		gap (i)	gap (ii)	<b>A</b>	an atom	thirty-two molecules	<b>B</b>	an atom	eight molecules	<b>C</b>	a molecule	sixteen atoms	<b>D</b>	a molecule	eight atoms
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3	<p>The compound ethyl mercaptan, <math>C_2H_5SH</math>, has a very unpleasant smell.</p> <p>What is its relative molecular mass?</p> <p><b>A</b> 34                      <b>B</b> 50                      <b>C</b> 61                      <b>D</b> 62</p>															

4

Students are asked to state

- the number of atoms in one molecule of ethanoic acid,
- the relative molecular mass,  $M_r$ , of this acid.

Which line is correct?

	number of atoms	$M_r$
<b>A</b>	8	32
<b>B</b>	8	60
<b>C</b>	9	26
<b>D</b>	9	46

5

Which relative molecular mass,  $M_r$ , is **not** correct for the molecule given?

	molecule	$M_r$
<b>A</b>	ammonia, $\text{NH}_3$	17
<b>B</b>	carbon dioxide, $\text{CO}_2$	44
<b>C</b>	methane, $\text{CH}_4$	16
<b>D</b>	oxygen, $\text{O}_2$	16

6

What is the relative molecular mass ( $M_r$ ) of  $\text{HNO}_3$ ?

**A** 5                      **B** 31                      **C** 32                      **D** 63

7	<p>A compound with the formula <math>\text{XF}_2</math> has a relative formula mass of 78.</p> <p>What is element X?</p> <p><b>A</b> argon  <b>B</b> calcium  <b>C</b> neon  <b>D</b> zirconium</p>
8	<p>In athletics, banned drugs such as nandrolone have been taken illegally to improve performance. Nandrolone has the molecular formula <math>\text{C}_{18}\text{H}_{26}\text{O}_2</math>.</p> <p>What is the relative molecular mass, <math>M_r</math>, of nandrolone?</p> <p>(Relative atomic mass: H = 1; C = 12; O = 16)</p> <p><b>A</b> 46                      <b>B</b> 150                      <b>C</b> 274                      <b>D</b> 306</p>
9	<p>What is the relative molecular mass, <math>M_r</math>, of nitrogen dioxide?</p> <p><b>A</b> 15                      <b>B</b> 23                      <b>C</b> 30                      <b>D</b> 46</p>
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11	<p>What is the relative formula mass, <math>M_r</math>, of <math>\text{CaCO}_3</math>?</p> <p><b>A</b> 50                      <b>B</b> 68                      <b>C</b> 100                      <b>D</b> 204</p>