gridlocks – can you unlock the grid?

Moles equations 1

Before you answer the puzzle below fill in the table showing the correct equation for moles given the different types of data using:

volume of gas **mass** **volume & conc of solution**

Data	Equation
	$moles = \frac{mass}{M_r}$
	$moles = \frac{vol(in\ dm^3)}{24}$
	$moles = conc \times vol(in\ dm^3)$

Gridlock 1

Each row, column and 2 x 2 box contains information about the three equations above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

data		equation	
volume of gas			
		mass	
	$moles = conc \times vol(in\ dm^3)$		

equation data

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Gridlock 2

Each row, column and 2 x 2 box contains information about the three equations above.

data		equation	
	mass		
			$moles = \frac{mass}{M_r}$
$moles = \frac{vol(in\ dm^3)}{24}$			volume & conc of solution

equation	data

Gridlock 3

Each row, column and 2 x 2 box contains information about the three equations above.

data		equation	
volume of gas			$moles = \frac{mass}{M_r}$
$moles = conc \times vol(in\ dm^3)$			

equation	data

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Moles equations 1 – answers

Before you answer the puzzle below fill in the table showing the correct equation for moles given the different types of data using:

volume of gas **mass** **volume & conc of solution**

Data	Equation
mass	$moles = \frac{mass}{M_r}$
volume of gas	$moles = \frac{vol(in\ dm^3)}{24}$
volume & conc of solution	$moles = conc \times vol(in\ dm^3)$

Gridlocks 1 – answers

data		equation	
volume of gas		$moles = conc \times vol(in\ dm^3)$	$moles = \frac{mass}{M_r}$
volume & conc of solution	mass		$moles = \frac{vol(in\ dm^3)}{24}$
	$moles = \frac{vol(in\ dm^3)}{24}$	mass	volume & conc of solution
$moles = \frac{mass}{M_r}$	$moles = conc \times vol(in\ dm^3)$	volume of gas	
equation		data	

Gridlocks 2 – answers

data		equation	
volume & conc of solution	mass	$moles = \frac{vol(in\ dm^3)}{24}$	
	volume of gas	$moles = conc \times vol(in\ dm^3)$	$moles = \frac{mass}{M_r}$
$moles = \frac{mass}{M_r}$	$moles = conc \times vol(in\ dm^3)$		volume of gas
$moles = \frac{vol(in\ dm^3)}{24}$		mass	volume & conc of solution
equation		data	

Gridlocks 3 – answers

data		equation	
volume of gas	volume & conc of solution		$moles = \frac{mass}{M_r}$
	mass	$moles = \frac{vol(in\ dm^3)}{24}$	$moles = conc \times vol(in\ dm^3)$
$moles = \frac{mass}{M_r}$	$moles = \frac{vol(in\ dm^3)}{24}$	volume & conc of solution	
$moles = conc \times vol(in\ dm^3)$		mass	volume of gas
equation		data	