## gridlocks - can you unlock the grid?

## Isomers of (E)-but-2-ene

(E)-but-2-ene has the structure:

$$H_3C$$
  $CH_3$ 

Before you answer the gridlocks below fill in the table of different types of isomer of (E)-but-2-ene using:

positional me	ethylpropene functional	but-1-ene
name	type of isomerism	structure
		H <sub>2</sub> C CH <sub>3</sub>
(Z)-but-2-ene	geometric	H <sub>3</sub> C CH <sub>3</sub>
	branched	$H_2$ C $\longrightarrow$ $CH_3$ $CH_3$
cyclobutane		

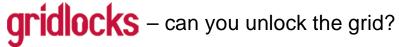
## Gridlock 1

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

name		type of isomerism	
(Z)-but-2-ene			positional
			cyclobutane
branched			
type of is	omerism	na	me







## **Gridlock 2**

Each row, column and 2 x 2 box contains information about each of the four isomers in the table.

type of isomerism		structure	
geometric			H <sub>2</sub> C CH <sub>3</sub>
	$H_2C$ $CH_3$ $CH_3$		functional
struc	cture	type of is	omerism

## **Gridlock 3**

Each row, column and 2 x 2 box contains information about each of the four isomers in the table.

name		type of isomerism	
(Z)-but-2-ene			
		functional	
		but 1-ene	
	$H_2C$ $CH_3$ $CH_3$		
strue	cture	na	me



## gridlocks – can you unlock the grid?

## Isomers of (E)-but-2-ene - answers

(E)-but-2-ene has the structure:

Before you answer the gridlocks below fill in the table of different types of isomer of (E)-but-2-ene using:

positional methyl	propene functiona	l but-1-ene
name	type of isomerism	structure
but-1-ene	positional	H <sub>2</sub> C CH <sub>3</sub>
(Z)-but-2-ene	geometric	H <sub>3</sub> C CH <sub>3</sub>
methylpropene	branched	$H_2C$ $CH_3$ $CH_3$
cyclobutane	functional	

### Gridlock 1 - answers

Each row, column and  $2 \times 2$  box contains information about the four isomers listed above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

name		type of isomerism	
(Z)-but-2-ene	methylpropene	functional	positional
cyclobutane	but-1-ene	geometric	branched
positional	geometric	methylpropene	cyclobutane
branched	functional	but-1-ene	(Z)-but-2-ene
type of isomerism		na	me



# gridlocks – can you unlock the grid?

## Gridlock 2 - answers

Each row, column and 2 x 2 box contains information about each of the four isomers in the table.

type of isomerism		structure	
geometric	functional	$H_2$ C $\longrightarrow$ C $H_3$	H <sub>2</sub> C CH <sub>3</sub>
branched	positional		H <sub>3</sub> C CH <sub>3</sub>
H <sub>2</sub> C CH <sub>3</sub>	$H_2C$ $CH_3$ $CH_3$	geometric	functional
	H <sub>3</sub> C CH <sub>3</sub>	positional	branched
structure		type of is	somerism

### Gridlock 3 - answers

Each row, column and 2 x 2 box contains information about each of the four isomers in the table.

name		type of isomerism	
(Z)-but-2-ene	cyclobutane	branched	positional
methylpropene	but-1-ene	functional	geometric
	H <sub>3</sub> C CH <sub>3</sub>	but-1-ene	methylpropene
H <sub>2</sub> C CH <sub>3</sub>	$H_2C$ $CH_3$ $CH_3$	(Z)-but-2-ene	cyclobutane
structure		na	me



