

Name:

Teacher

Assy #1 - USEPR

$$\frac{100 - \# \text{ wrong}}{10} =$$

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Formula	Central at lone pairs	Atom # of bonding pairs	Dot Diagram	USEPR Code	Molecular Shape	Is the molecule polar? Yes or No
BeCl_2	0	2	$\text{Cl}-\text{Be}-\text{Cl}$	AB_2	Linear	N
NH_3	1	3	$\text{H}-\text{N}-\text{H}$ H	AB_3E	trigonal pyramidal	Y
SiCl_4	0	4	$\text{Cl}-\text{Si}-\text{Cl}$ Cl	AB_4	tetrahedral	N
CO_2	0	4	$\text{O}=\text{C}=\text{O}$	AB_2	linear	N
SF_6	1	4	$\text{F}-\text{S}-\text{F}$ F	AB_6E	See-saw (distorted)	Y
O_2	2	2	$\text{O}=\text{O}$	AB_2	Linear	N
HCl	0	1	$\text{H}-\text{Cl}$	AB AB_3	Linear	Y
H_2S	2	2	$\text{H}-\text{S}-\text{H}$ H	AB_2E_2	Angular	Y
NI_3	1	3	$\text{I}-\text{N}-\text{I}$ I	AB_3E	trigonal pyramidal	Y

Substance	Central # of lone pairs	Atom # of bonding pairs	Dot Diagram	USEPE Code	Molecular Shape	Is the molecule polar? yes or No
CF_4	0	4	<pre> F F - C - F F </pre>	AB_4	tetrahedral	N
CO_2	2	2	<pre> O=C=O : : : : </pre>	AB_2E_2	linear	N
$HOCl$	2	2	<pre> H O - Cl : : </pre>	AB_2E_2	bent	Y
N_2	1	3	$N \equiv N$	ABE	linear	N
ICl_3	0	4	<pre> I Cl - I - Cl </pre>	AB_4	trigonal bipyramidal	Y
SF_6	0	6	<pre> F F - S - F F F F </pre>	AB_6	octahedral	N
PCl_5	0	5	<pre> Cl Cl - P - Cl : : : Cl Cl Cl </pre>	AB_5	trigonal bipyramidal	N
SO_4^{2-}	0	4	<pre> O O - S - O : : : O O O </pre>	AB_4	tetrahedral	N
$BrCl_5$	1	5	<pre> Cl Cl - Br - Cl : : : Cl Cl Cl </pre>	AB_5E	square pyramidal	Y

