

Consider the following reaction:



If there are 12 moles of FeO(s) and 12 moles of Al(l), what is the maximum amount of Al₂O₃(s) that can be produced?

1. 2.0 moles
2. 4.0 moles
3. 6.0 moles
4. 8.0 moles
5. 12 moles
6. 24 moles
7. 36 moles

Consider the following reaction:



If there are 12 moles of FeO(s) and 12 moles of Al(l), what is the maximum amount of Al₂O₃(s) that can be produced?

3%

1. 2.0 moles

82%



2. 4.0 moles

8%

3. 6.0 moles

3%

4. 8.0 moles

3%

5. 12 moles

1%

6. 24 moles

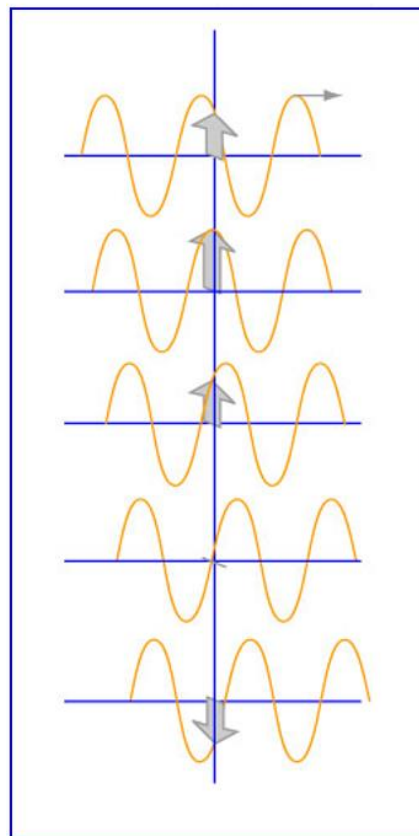
0%

7. 36 moles

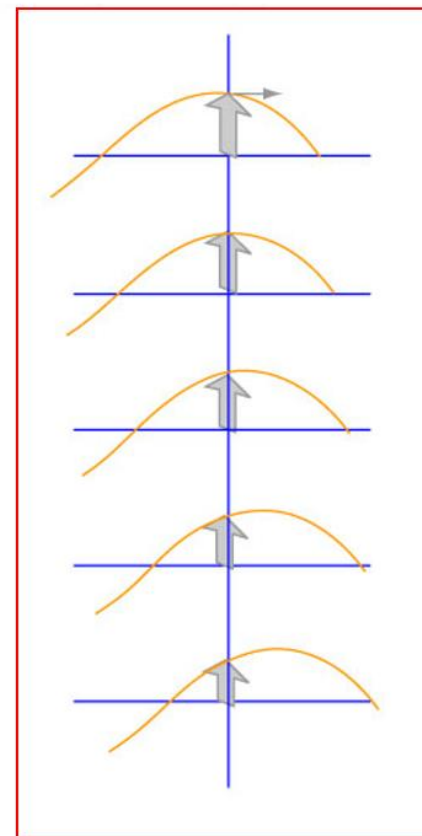
Identify the correct statement from the choices below:

1. Light wave A has a shorter λ and a lower ν .
2. Light wave A has a shorter λ and a higher ν .
3. Light wave A has a longer λ and a higher ν .
4. Light wave A has a longer λ and a lower ν .

light wave A

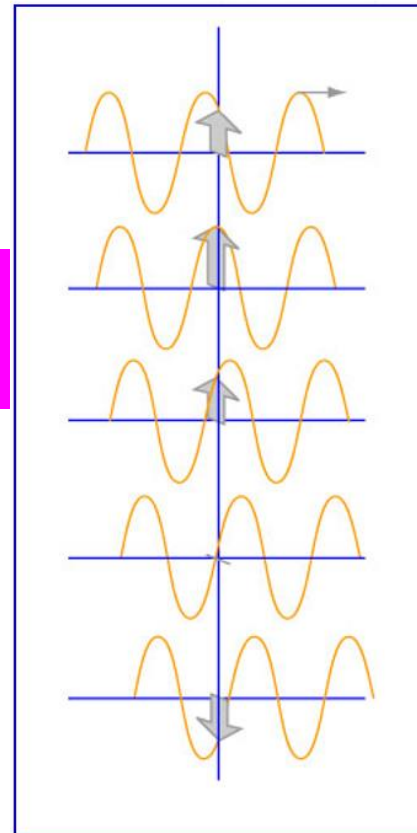


light wave B

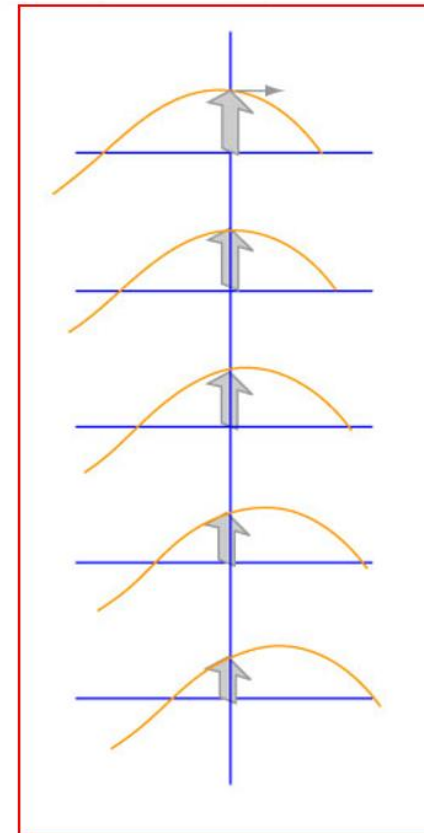


Identify the correct statement from the choices below:


light wave A



light wave B

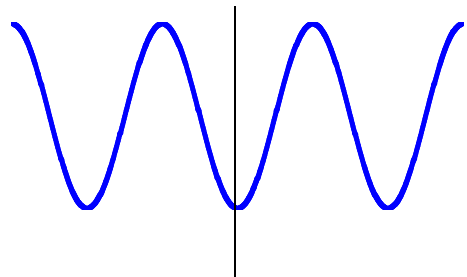


5% 1. Light wave A has a shorter λ and a lower ν .

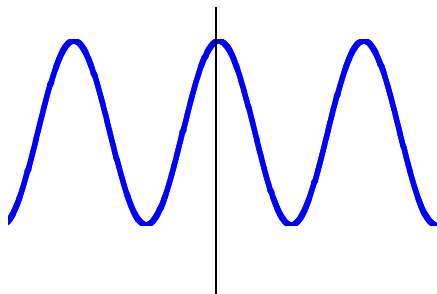
92%  2. Light wave A has a shorter λ and a higher ν .

2% 3. Light wave A has a longer λ and a higher ν .

2% 4. Light wave A has a longer λ and a lower ν .



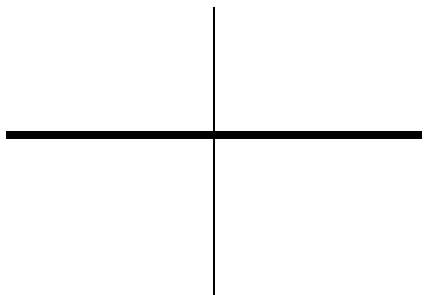
+



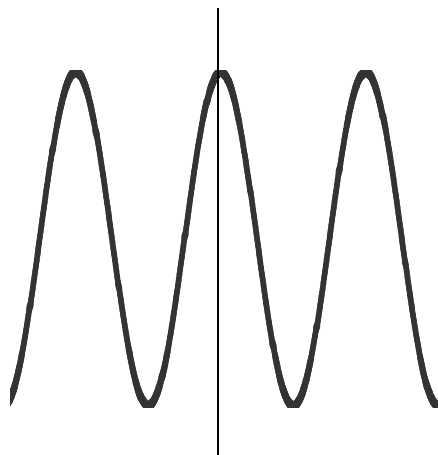
=

?

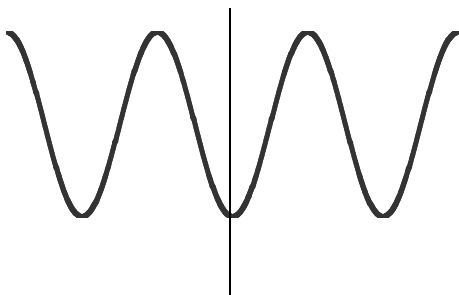
1



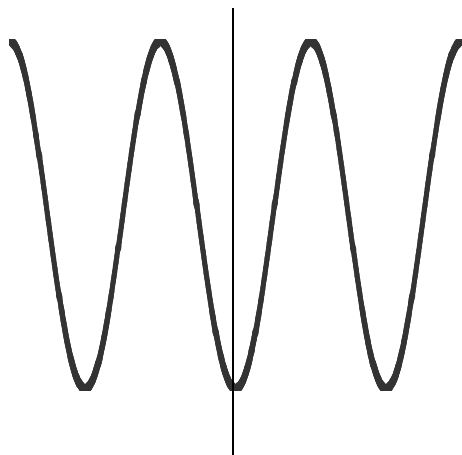
2



3



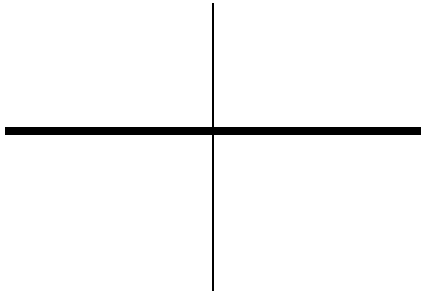
4



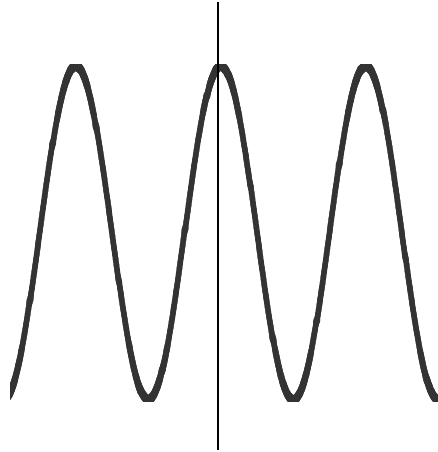
Two blue sine waves are shown, separated by a plus sign. To the right of the second wave is an equals sign followed by a question mark, indicating a mathematical operation or a question about the result.



1



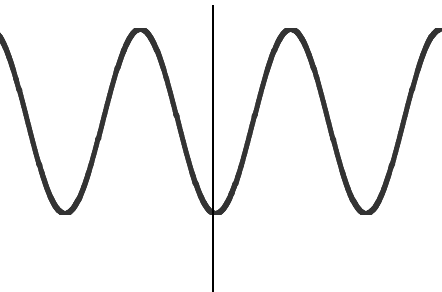
2



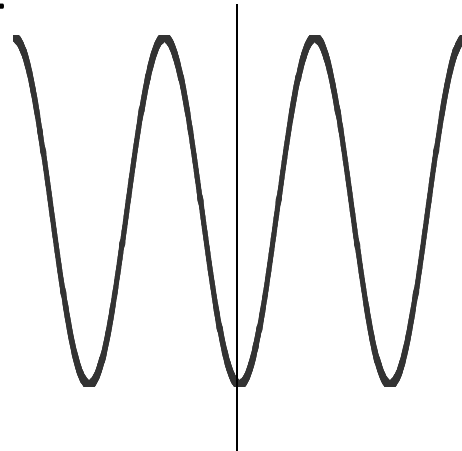
98%



3



4



1%



1%



0%



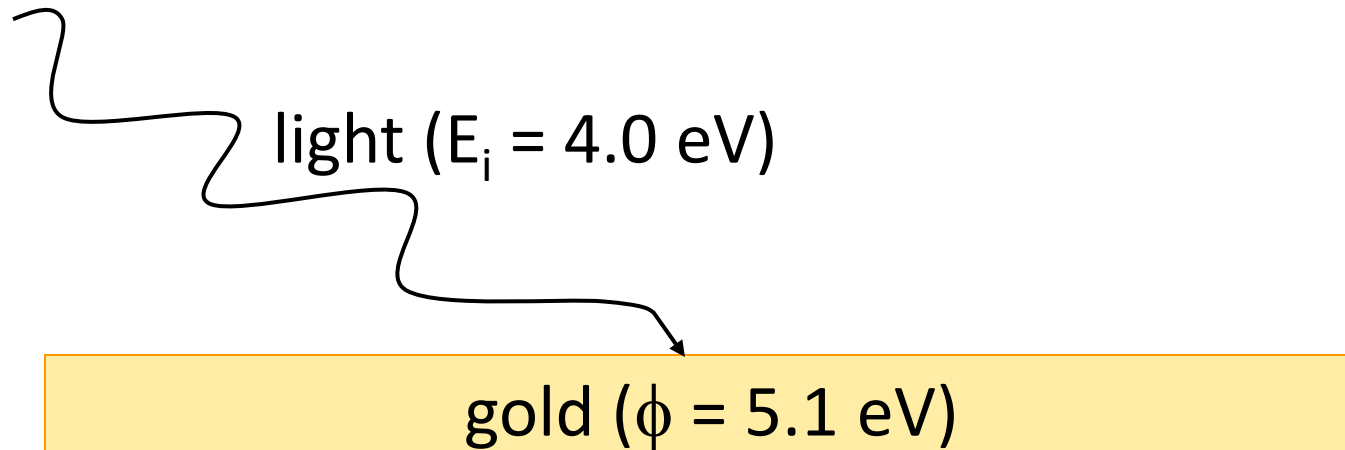
1.

2.

3.

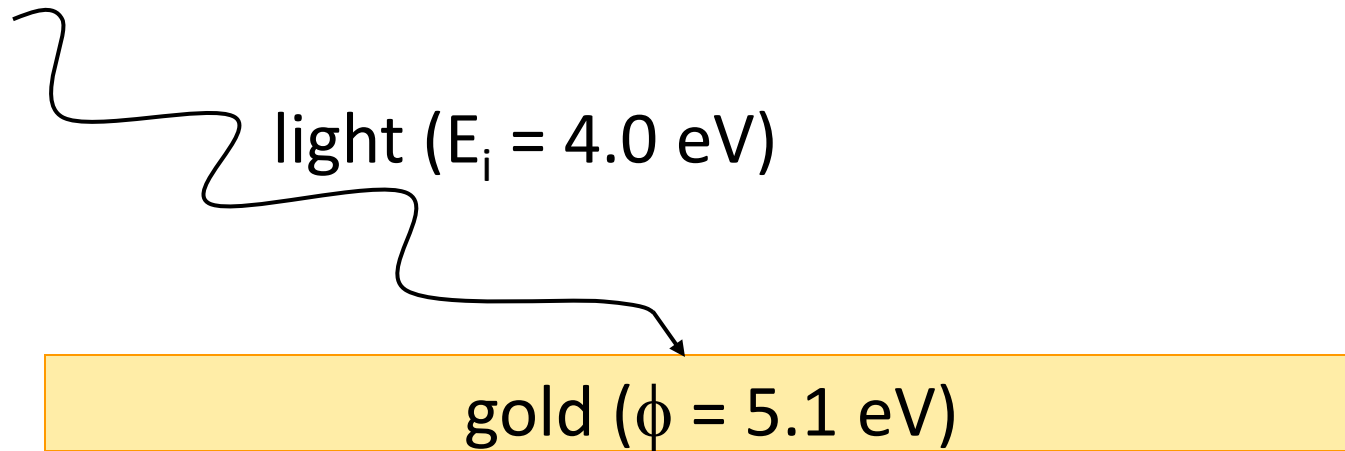
4.

If a beam of light with energy = 4.0 eV (1 eV = 1.602×10^{-19} J) strikes a gold surface, what is the maximum kinetic energy of the ejected electrons?



1. K.E. = 9.1 eV
2. K.E. = 5.1 eV
3. K.E. = 1.1 eV
4. K.E. = 4.0 eV
5. No electrons will be ejected.

If a beam of light with energy = 4.0 eV (1 eV = 1.602×10^{-19} J) strikes a gold surface, what is the maximum kinetic energy of the ejected electrons?



3%

1. K.E. = 9.1 eV

1%

2. K.E. = 5.1 eV

12%

3. K.E. = 1.1 eV

2%

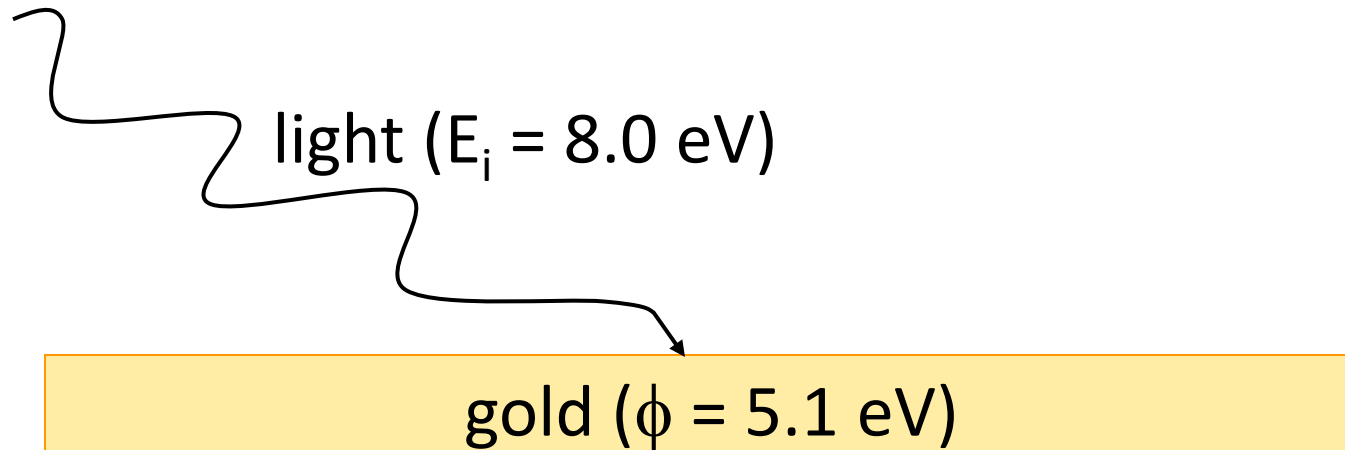
4. K.E. = 4.0 eV

81%



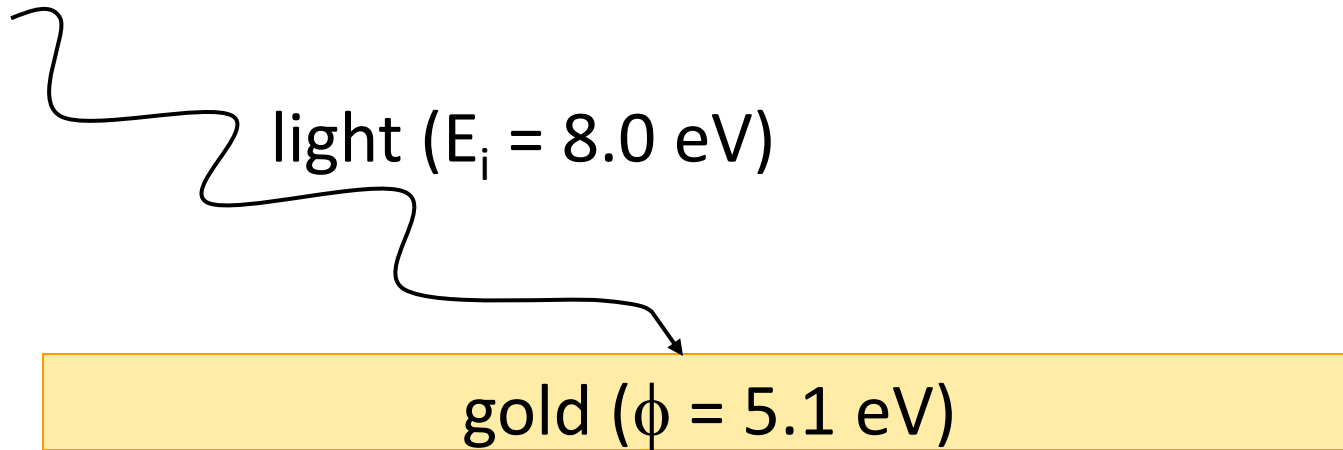
5. No electrons will be ejected.

If a beam of light with energy = 8.0 eV strikes a gold surface, what is the maximum kinetic energy of the ejected electrons?



1. K.E. = 13.1 eV
2. K.E. = 2.9 eV
3. K.E. = 8.0 eV
4. K.E. = 5.1 eV
5. No electrons will be ejected.

If a beam of light with energy = 8.0 eV strikes a gold surface, what is the maximum kinetic energy of the ejected electrons?



0%

1. K.E. = 13.1 eV

98%



2. K.E. = 2.9 eV

1%

3. K.E. = 8.0 eV

1%

4. K.E. = 5.1 eV

1%

5. No electrons will be ejected.

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