عرض جميع الأسئلة

عرض التغذية الراجعة

عرض المعلومات المساعدة

السؤال 1

Select the best answer.

The electron configuration for copper is $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^1\ 3d^{10}$

How does its configuration make it different from most other d-block elements?

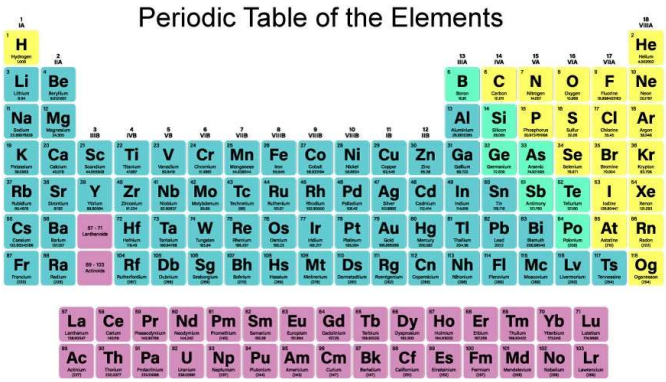


- [x] Copper only has one electron in its outermost *s* orbital.
- [ ] Copper has a completely filled *d* orbital in its second highest energy level.
- [ ] Copper only has one orbital that is not completely filled.
- [ ] Copper has three completely filled *s* orbitals.

السؤال 2

Select the best answer.

Which of these elements is found in the periodic table's f-block?



cobalt,
$[Ar]4s^2 3d^7$

lithium,
$1s^2 2s^1$

tellurium,
$[Kr]5s^2 4d^{10} 5p^4$

uranium,
$[Rn]7s^2 6d^1 5f^3$ ✓

السؤال 3

Select the best answer.

Which of these elements is found in the periodic table's d-block?

$[Kr]\ 5s^1\ 4d^5$ ✓

- [Ne] $3s^2\ 3p^6$
- [Xe] $6s^2\ 5d^1\ 4f^{14}$
- [Ar] $4s^2\ 3d^{10}\ 4p^2$

السؤال 4

Select the best answer.

Silicon is an element that is part of the p-block of the periodic table. Silicon has four valence electrons. Knowing this, which of these must be silicon's electron configuration?



- $[Ne]\,3s^2\,3p^4$
- $[Ar]\,4s^2\,3d^4$
- [Ne] $3s^2\ 3p^2$ ✓
- $[Ar]\,4s^2\,3d^2$

السؤال 5

Select the best answer.

Barium is an element that is part of the s-block and period 6 of the periodic table. Knowing this, which of these must be barium's electron configuration?



- [Xe] $6s^2\ 4f^{14}\ 5d^{10}\ 6p^3$
- [Xe] $6s^2\ 4f^{14}\ 5d^{10}$
- [Xe] $6s^2$ ✓
- [Xe] $6s^2\ 4f^{14}\ 5d^2$

السؤال 6

Select the best answer.

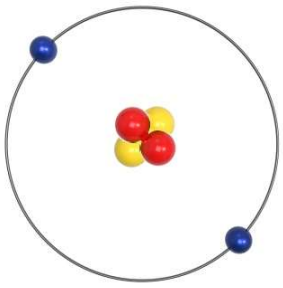
An element has the following electron configuration [Xe] $6s^2\ 4f^{14}\ 5d^{10}\ 6p^6$.
What block of the periodic table does this element belong to?

- The element belongs to the d-block, because it has a filled inner *d* orbital.
- The element belongs to the s-block, because it has the highest principal energy level (*n*) in the s-block.
- The element belongs to the f-block, because it has a very complex structure.
- ✓ The element belongs to the p-block, because it has a filled outer *p* orbital.

السؤال 7

Select the best answer from the drop-down menu to complete the sentence.

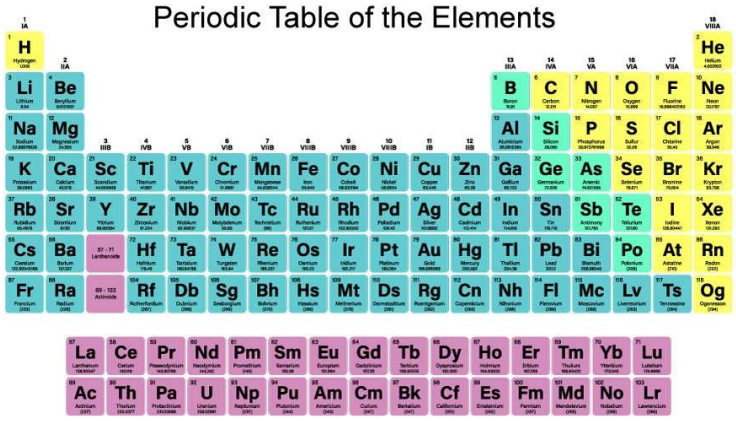
This helium atom has only one atomic orbital, which belongs to energy sublevel [s ✓] .



السؤال 8

Select the best answer.

Why is the s-block smaller than the other three blocks on the periodic table?



- The elements in this block only include metalloids and noble gases.
- The elements in this block have outer orbitals that are completely filled with electrons.
- The elements in this block tend not to react with elements in other groups.
- ✓ The elements in this block can only hold two electrons in their outer orbitals.

السؤال 9

Select the best answer.

This is the electron configuration for an element in the periodic table [Xe] $6s^2$ $4f^{14}$ $5d^{10}$ $6p^6$.

What statement **best** describes this element's level of reactivity?

- ✓ The element is highly unreactive, because its *s* and *p* orbits are both full.
- The element is only slightly reactive, because it belongs to the p-block.

The element is highly reactive, because it includes all four types of orbitals.

The answer cannot be determined from this information.

السؤال 10

Select the best answer from the drop-down menu to complete the sentence.

The f-block of the periodic table is comprised mainly of radioactive metals .

السؤال 11

Drag and drop the best answers to complete the sentence.

In the f-block of the periodic table, actinides have partially filled f orbitals in the fifth principal energy level, while lanthanides have partially filled f orbitals in the fourth principal energy level.

sixth third first second

السؤال 12

Select the best answer from the drop-down menu to complete the sentence.

Noble gases ✓ have completely filled s and p orbitals, which makes them highly unreactive.

السؤال 13

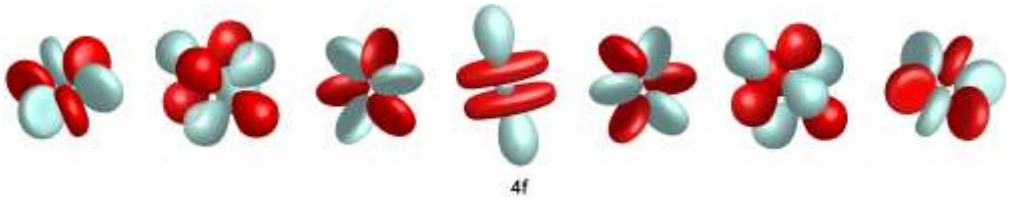
Select the best answer from the drop-down menu to complete the sentence.

On the periodic table, the s-block ✓ includes the table's most reactive metals.

السؤال 14

Select the best answer from the drop-down menu to complete the sentence.

These orbitals are examples of those found in energy sublevel f ✓ .



السؤال 15

Select the best answer.

Identify the electron configuration for the element which forms part of the noble gases.

- $[Ar]4s^2 3d^6$
- $1s^2 2s^2 2p^5$
- $[He]\ 2s^2$
- $1s^2$ ✓