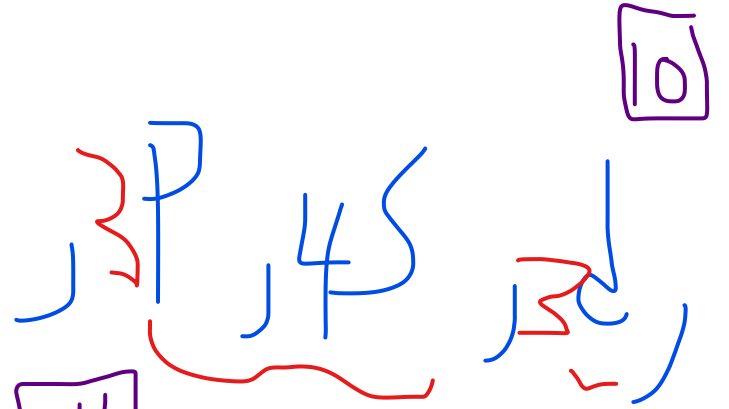
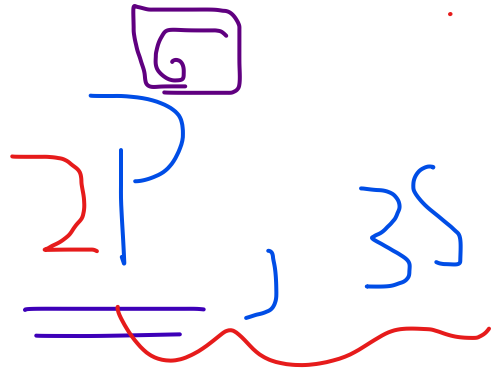
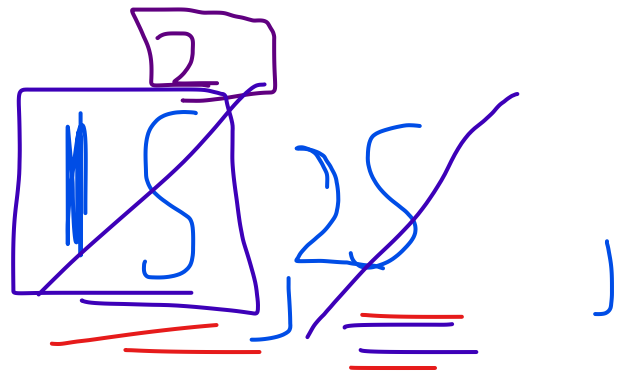


S, P, d, f



4P, 5S

4d, 5P, 6S

4f, 5d, 6P, 7S

~~6d7P8S~~

$\underline{\underline{6}} :- \underline{\underline{1S^2}}, \underline{\underline{2S^2}}, \underline{\underline{2P^2}}$

$\underline{\underline{12}} :- 1S^2, 2S^2, 2P^6, \underline{\underline{3S^2}}$

$17C_1 : 1s^2, 2s^2, 2p^6, 3s^2, 3p^5$

$21Sc : 1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^3$

ر

لرقة = الرابعة

المجموعة = B^3

$$\begin{array}{l} \underline{\underline{1B}} \quad *1 \\ \underline{\underline{2B}} \quad *2 \end{array} = \underline{\underline{eS}} + \underline{\underline{eD}} \quad *$$

$$\begin{array}{l} 8 \\ 9 \\ 10 \end{array} \quad \leftarrow \text{مجموعة}$$

$$\underline{\underline{eS}} + \underline{\underline{eD}}$$

$$\begin{array}{l} 30 \\ h \end{array} \rightarrow \left[\underline{\underline{1S}}^2, \underline{\underline{2S}}^2, \underline{\underline{2P}}^6, \underline{\underline{3S}}^2, \underline{\underline{3P}}^6 \right], \underline{\underline{4S}}^2, \underline{\underline{3D}}^{10}$$

$$\underline{\underline{Ar}}, \underline{\underline{4S}}^2, \underline{\underline{3D}}^{10}$$

الدرجة = الرابطة⁴

المجموعة = $10 + 2 = 12$ ← IB

Co :- $1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^7$
27 2 5
 Arg, $4s^2, 3d^7$
5
 دوره :- الرابعة

المجموعة = $2 + 7 = 9$ ← VII B

Cr: $1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^4$

24 $1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^1, 3d^5$
 $Ar, 4s, 3d^5$

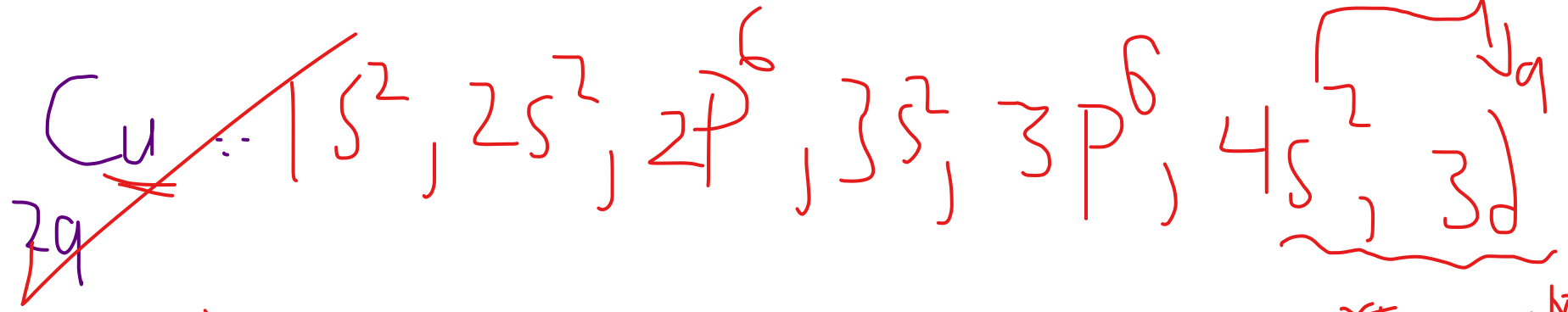
30 عنصر

4 th	Sc	اللازول Zn
5 th	Y	الكتاينة Cd
6 th	La	الذالفة Hg

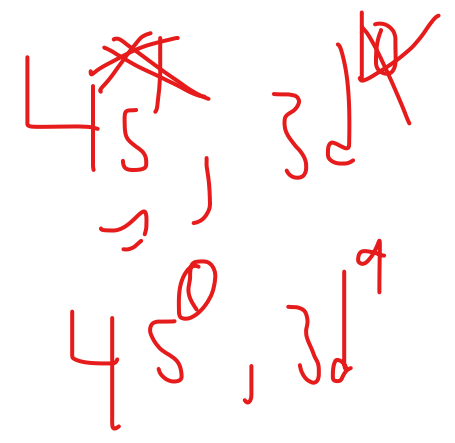
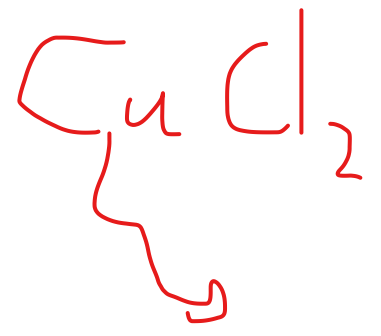
العنصر الانتقالي : عنصر ←

نيزك انتقالي

أولاً أحد أمثلة حده



انتقالی



$L_{41} : 1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}$
 $5f$

$4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f$



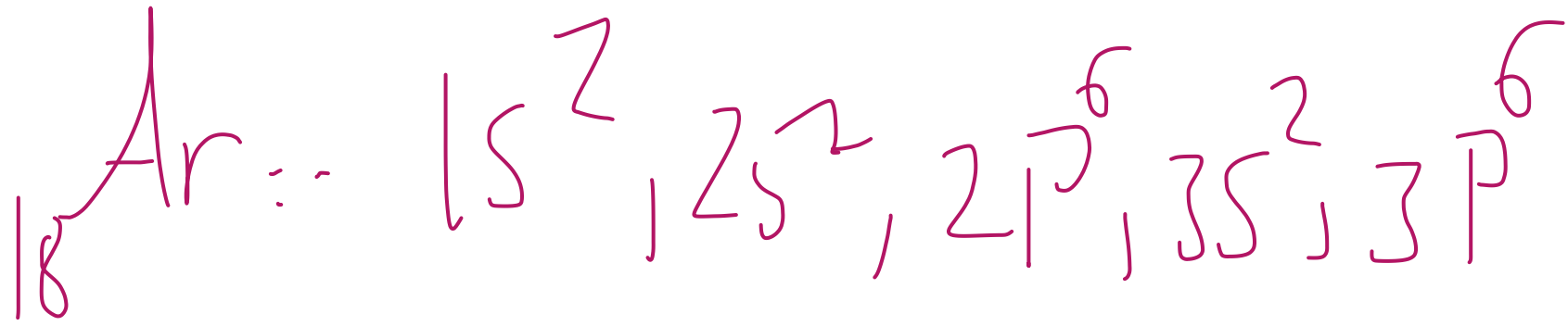
$4s^2, 3d^{10}$

~~$3d$~~

~~48~~ :- $1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6$
 $5s^2, 4d^{10}$

* عناصر المجموعة III B (Hg, Zn)

غير انتقالية لأن له مكتبة



~~He~~

~~Ne~~

$18 \text{ Ar}, 45$

$36 \text{ Kr}, 55$

$54 \text{ Xe}, 65$

