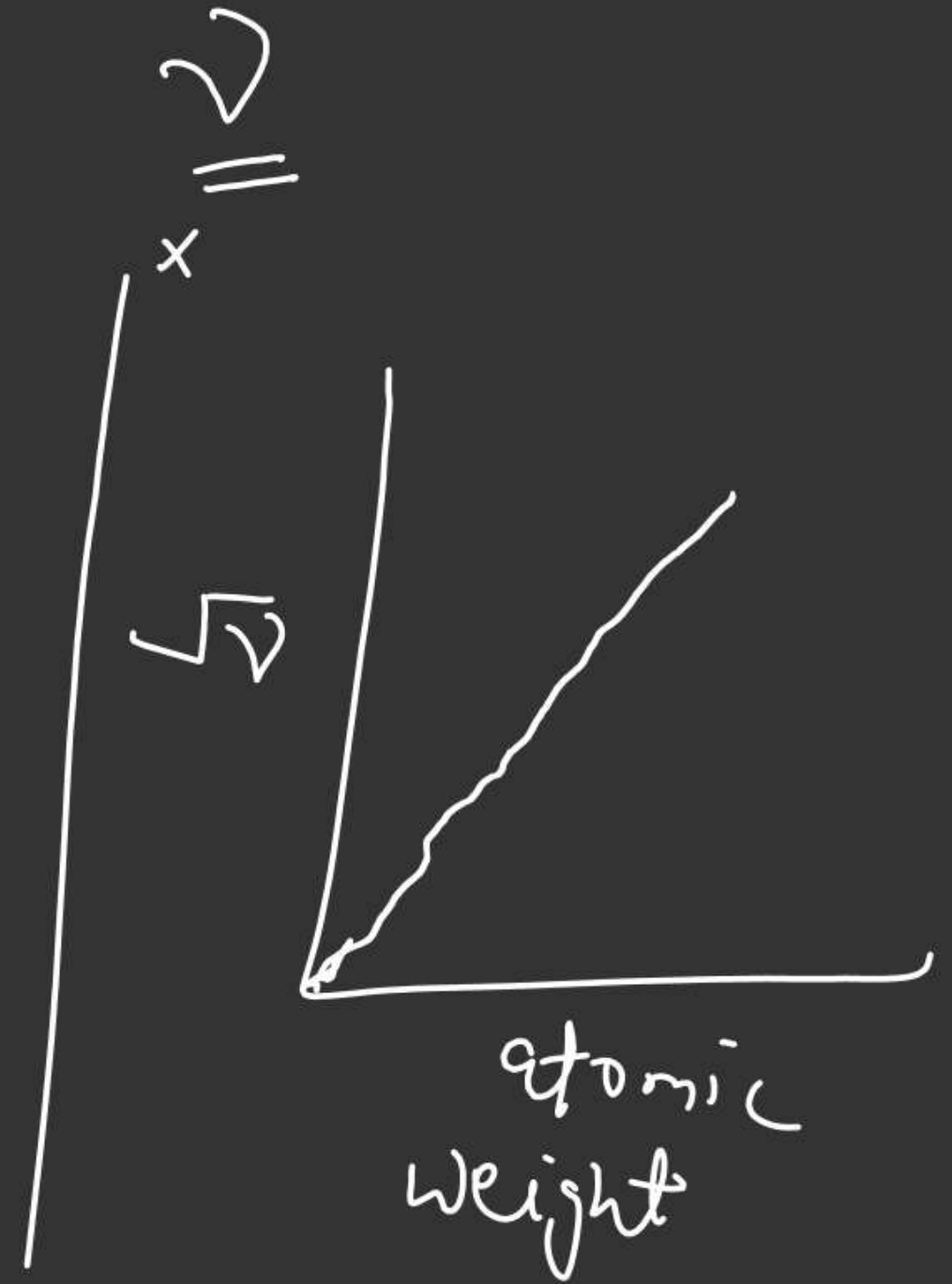
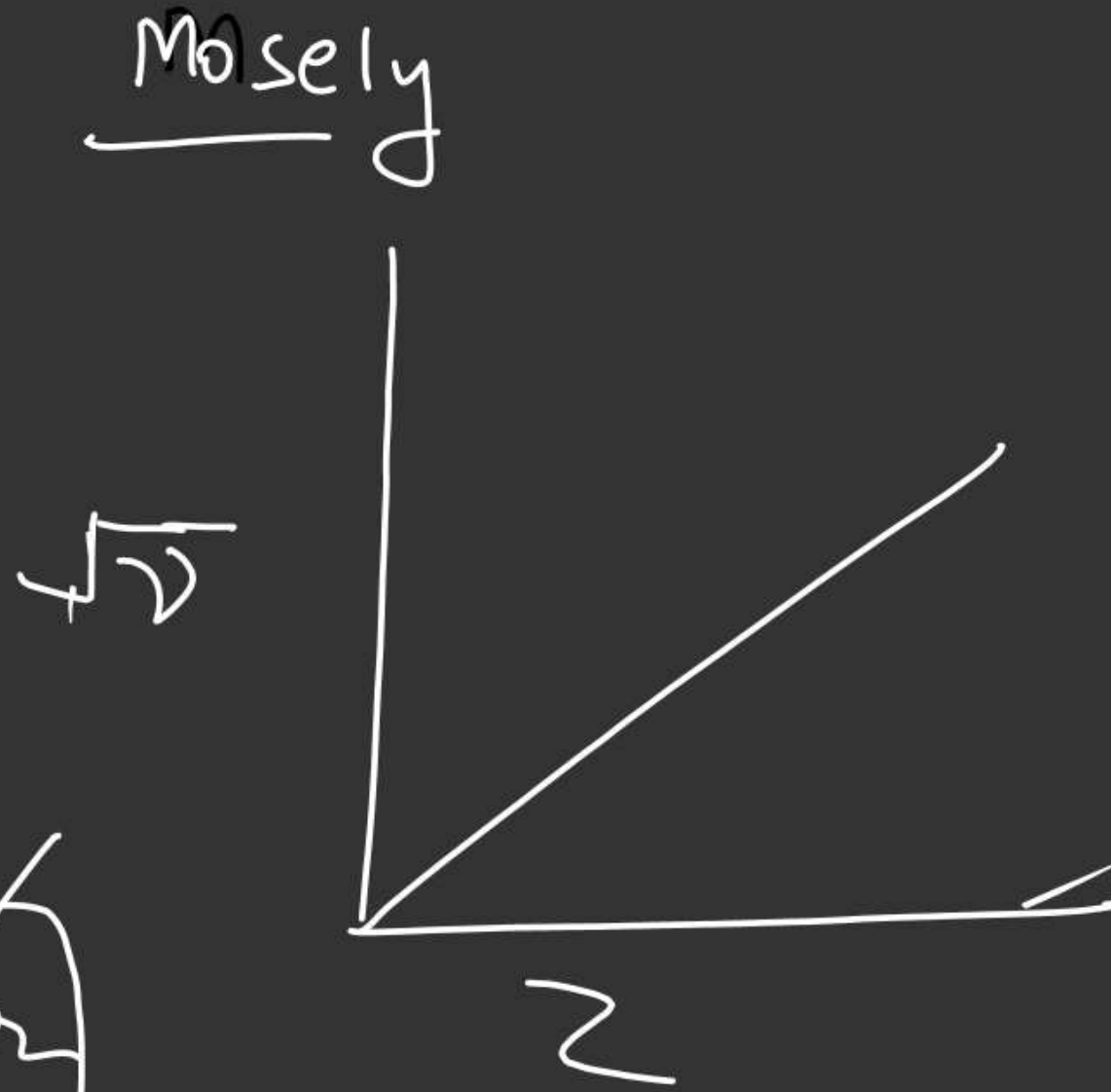
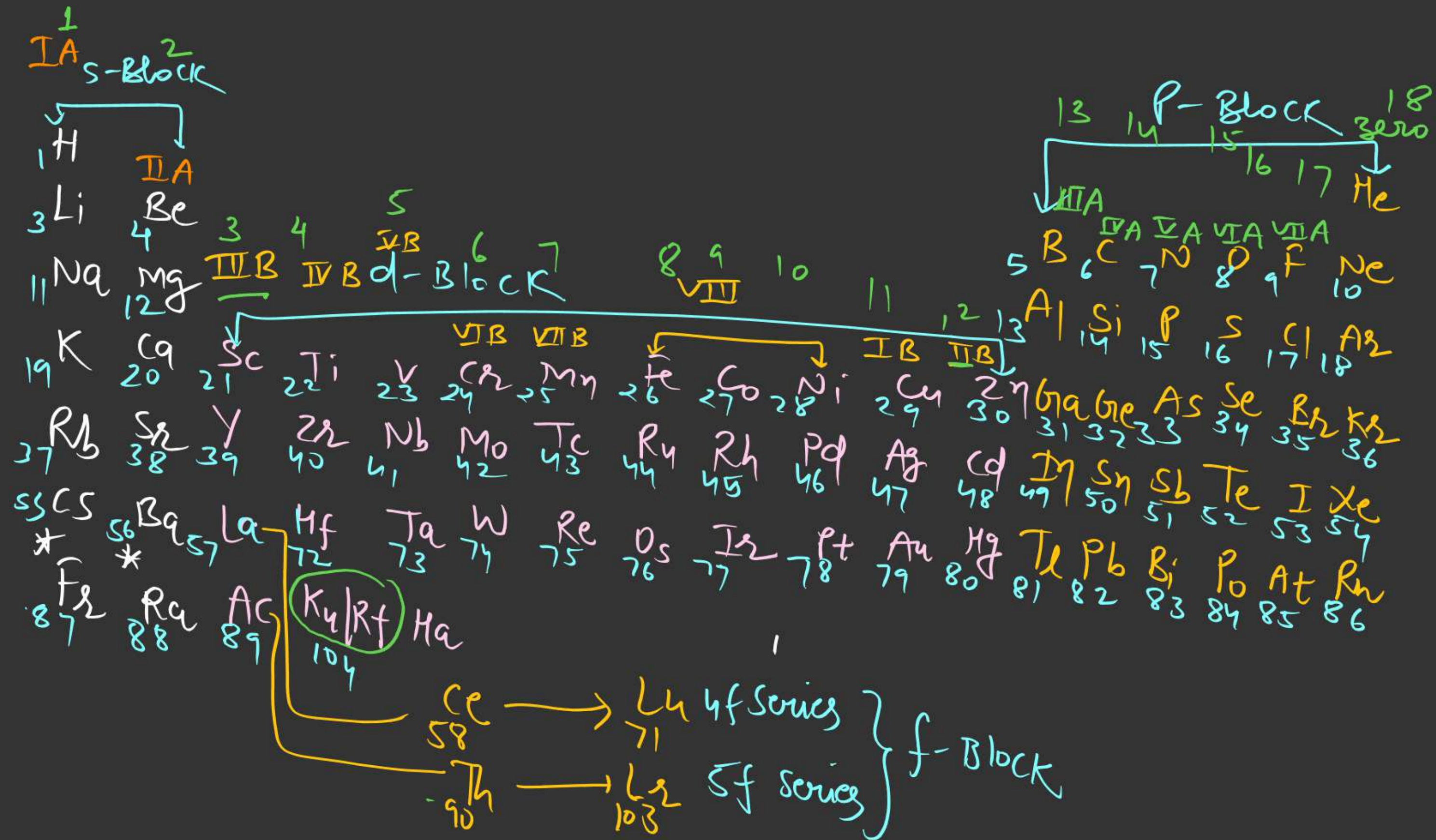


$$\sqrt{\nu} \propto Z$$

atomic number



Note \Rightarrow Physical and chemical prop. of
an elements are the periodic function
of their atomic number



I · U · P · A · C

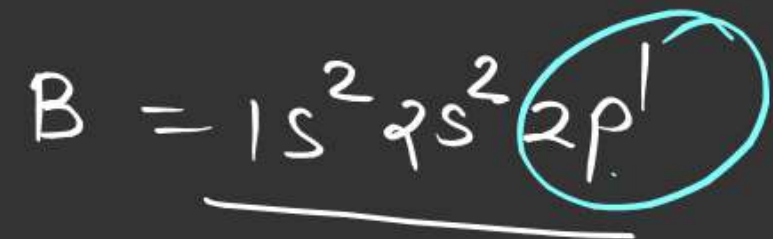
0	nil
1	un
2	bi
3	tri
4	quad
5	pent
6	hex
7	sept
8	oct
9	enn

$$101 = \text{Unnilunium} [U_{nu}]$$

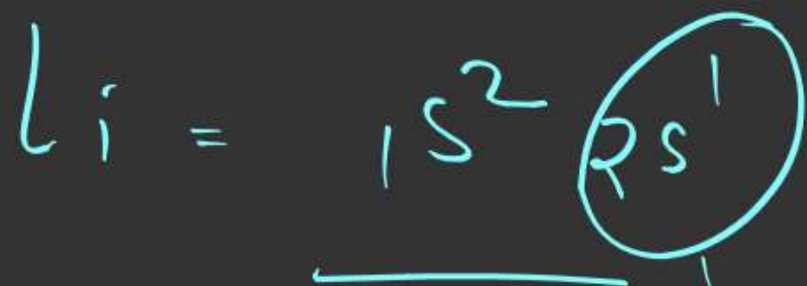
$$104 = \text{Unnilquadium} [U_{nq}]$$

Werner, Rang, and Bohr berry

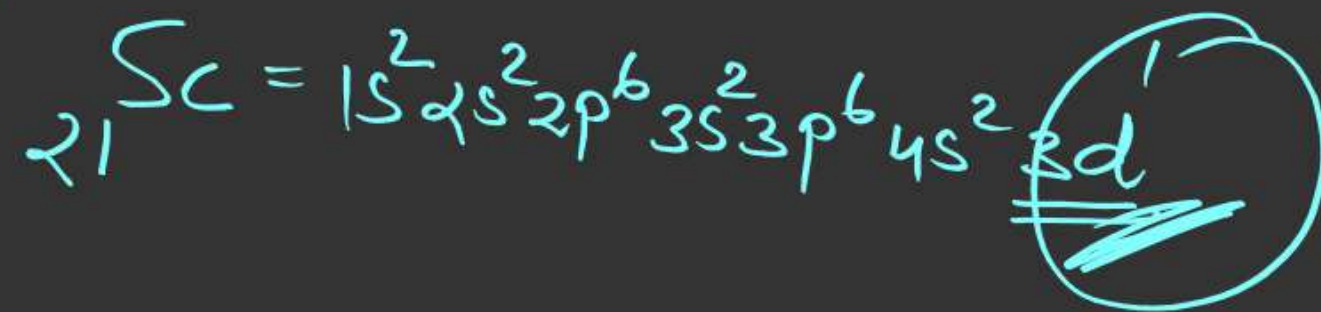
Block identification

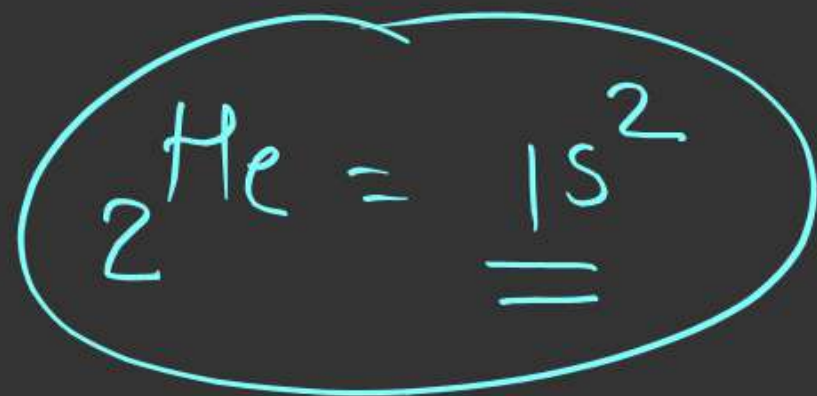


B is P-Block element



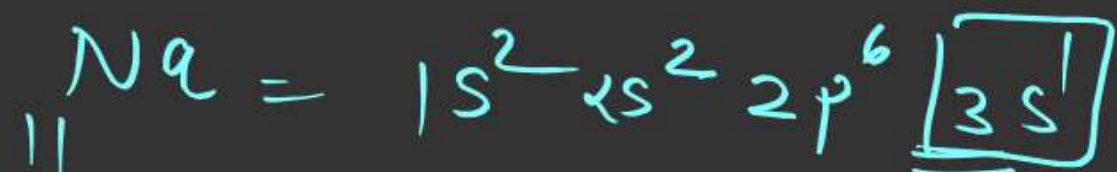
S-Block





Period = highest Principle Q.N

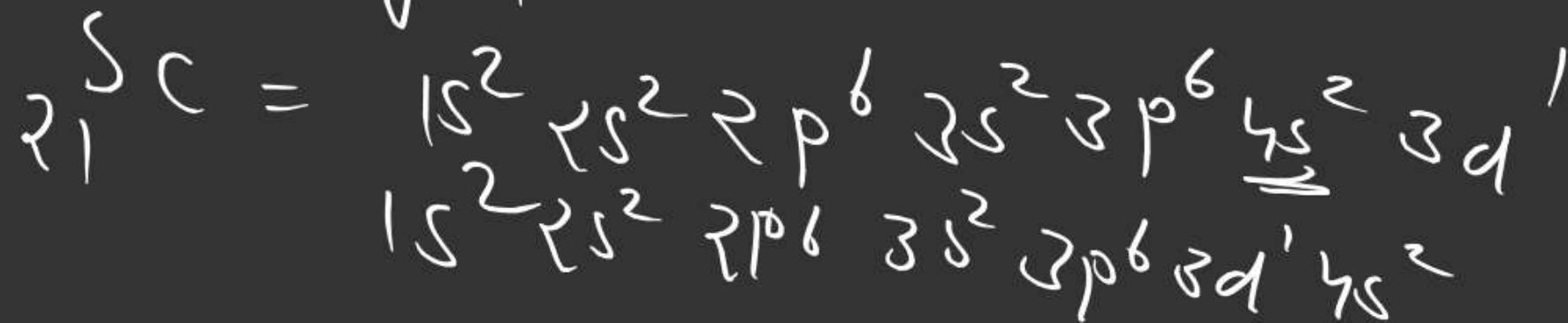
identify period of ${}_{11}\text{Na}$

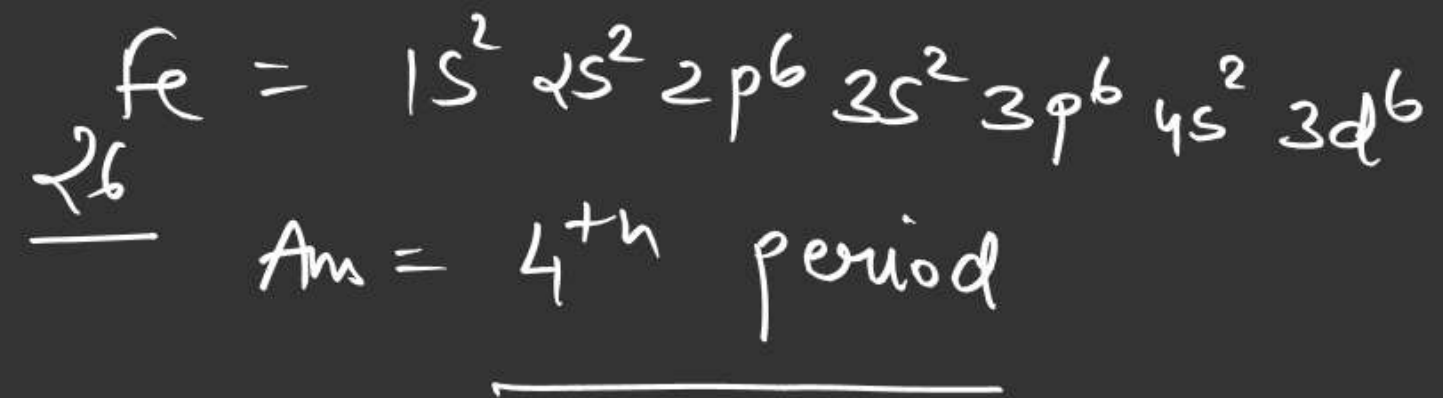


Ans = 3rd period

Ques

identify period of ${}_{21}\text{Sc}$





group number

S-Block

$ns^1 \rightarrow \text{group } 1/IA$

$ns^2 \rightarrow \text{group } 2/IIA$

${}_3Li = 1s^2 ns^1$

group - 1/IA

period = 2 period

Block = S-Block

P-Block

group \Rightarrow $\underbrace{\text{number of } ns e^- + \text{number of } np e^-}_{+ 10}$

$$\begin{aligned}
 B &= 1s^2 \uparrow s^2 2p^1 \\
 &= 2 + 1 + 10 \\
 &= \underline{13} / \underline{III} A
 \end{aligned}$$

$$\begin{aligned}
 {}_6C &= 1s^2 \alpha s^2 2p^2 \\
 &= 2 + 2 + 10 \\
 &= \underline{\underline{14}}
 \end{aligned}$$

$${}_{81}^{Tl} = [\cancel{Xe}] 4f^{14} 5d^{10} \underline{6s^2} \underline{6p^1}$$

$$= 2 + 1 + 10$$

$$= \textcircled{13} / \text{IIIA}$$

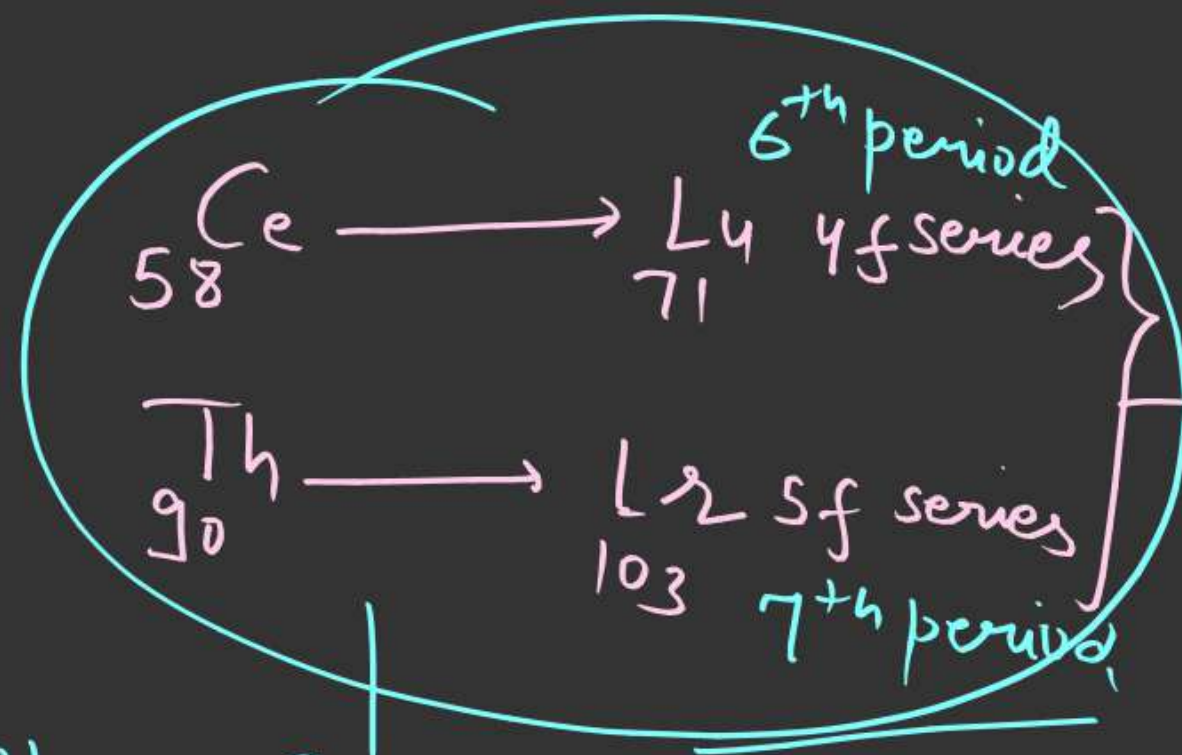
Sn
50

$$\begin{aligned}
 \text{Sn} &= 1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^2 \\
 &= 1s^2 \cancel{2s^2} 2p^6 3s^2 3p^6 \cancel{3d^{10}} 4s^2 4p^6 4d^{10} \underline{5s^2 5p^2}
 \end{aligned}$$

$$2 + 2 + 10$$

group 14

group identification



124

105

106

107

108

109

110

111

112

113

114

115

116

117

118

Block (f block)

Block → f-Block

group = III B | 3rd

no of e^-

s	2
p	6
d	10
f	14
g	18
h	22

Period	Subshells	number of e^-	number of element	element
1	s	2	2	${}_1\text{H} \rightarrow {}_2\text{He}$ Shortest
2	s p	8	8	${}_3\text{Li} \rightarrow {}_{10}\text{Ne}$ Short
3	s p	8	8	${}_{11}\text{Na} \rightarrow {}_{18}\text{Ar}$ Short
4	s d p	18	18	${}_{19}\text{K} \rightarrow {}_{36}\text{Kr}$ long
5	s d p	18	18	${}_{37}\text{Rb} \rightarrow {}_{54}\text{Xe}$ long
6	s f d p	32	32	${}_{55}\text{Cs} \rightarrow {}_{86}\text{Rn}$ longest
7	s f d p	32	32	${}_{87}\text{Fr} \rightarrow 118(\text{Og})$ longest
8	s f f d p	50		
9	s g f d p	50		
10	s h g f d p	72		
11	s h g f d p	72		