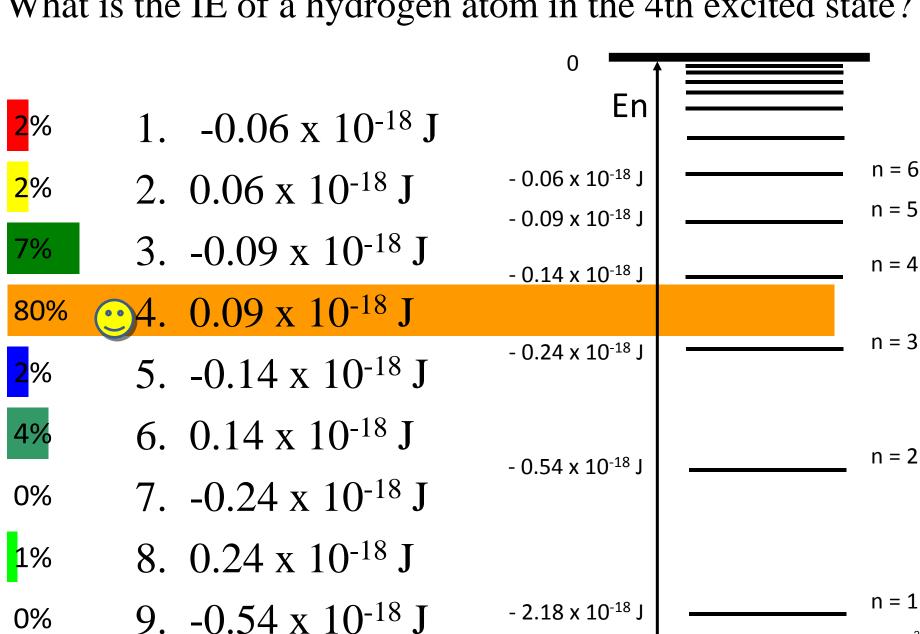
What is the IE of a hydrogen atom in the 4th excited state?

1.
$$-0.06 \times 10^{-18} \, \text{J}$$
2. $0.06 \times 10^{-18} \, \text{J}$
3. $-0.09 \times 10^{-18} \, \text{J}$
4. $0.09 \times 10^{-18} \, \text{J}$
5. $-0.14 \times 10^{-18} \, \text{J}$
6. $0.14 \times 10^{-18} \, \text{J}$
7. $-0.24 \times 10^{-18} \, \text{J}$
8. $0.24 \times 10^{-18} \, \text{J}$
9. $-0.54 \times 10^{-18} \, \text{J}$
9. $-0.54 \times 10^{-18} \, \text{J}$
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17. $-0.09 \times 10^{-18} \, \text{J}$
18. $-0.09 \times 10^{-18} \, \text{J}$
19. -0.09×10^{-18

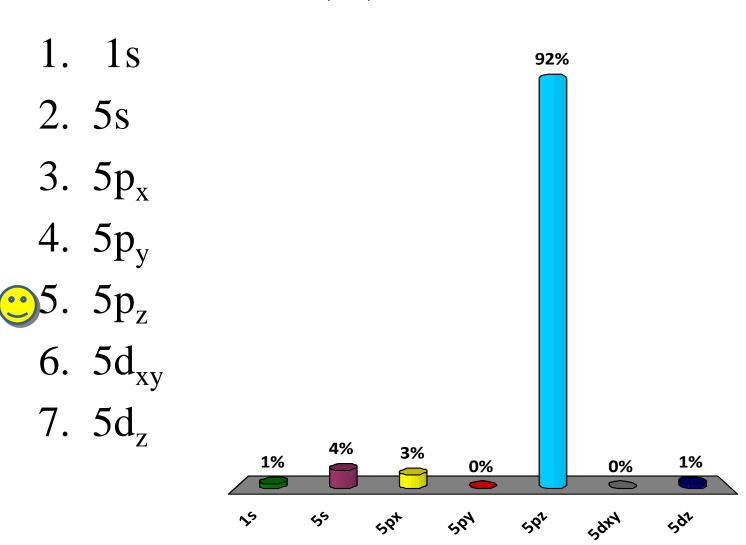
What is the IE of a hydrogen atom in the 4th excited state?



What is the corresponding orbital for a 5,1,0 state?

- 1. 1s
- 2. 5s
- 3. $5p_{x}$
- $4.5p_y$
- 5. 5p_z
- $6.5d_{xy}$
- 7. $5d_z$

What is the corresponding orbital for a 5,1,0 state?

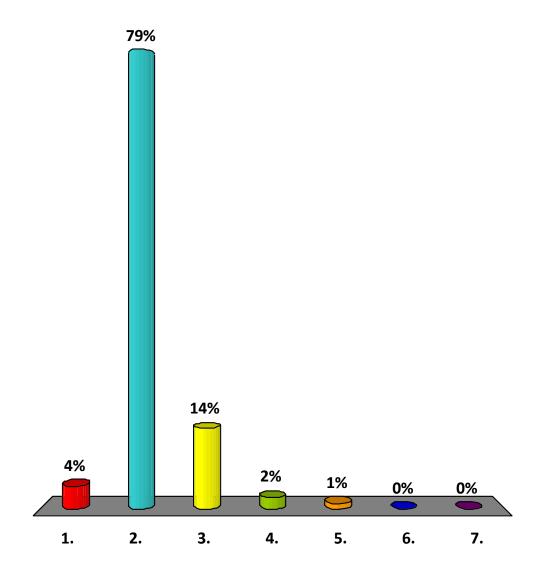


How many **radial nodes** does a 4p orbital have?

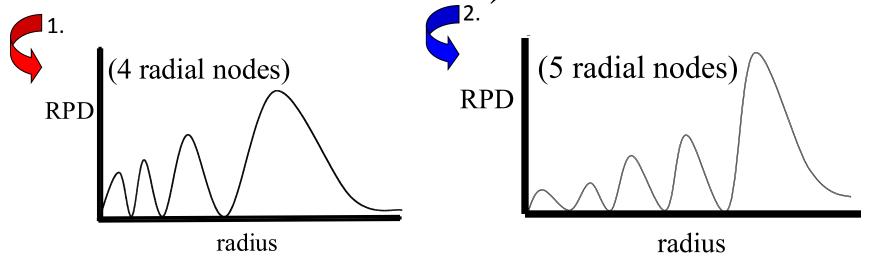
- 1. 1
- 2. 2
- 3. 3
- 4. 4
- 5. 5
- 6. 6
- 7. 0

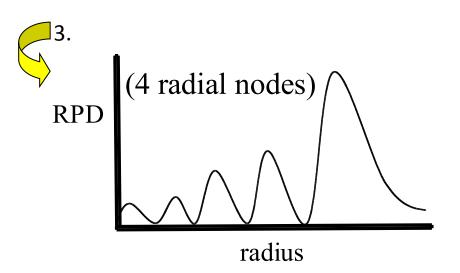
How many **radial nodes** does a 4p orbital have?

- 1. 1
- <u>•</u>2. 2
 - 3. 3
 - 4. 4
 - 5. 5
 - 6. 6
 - 7. 0

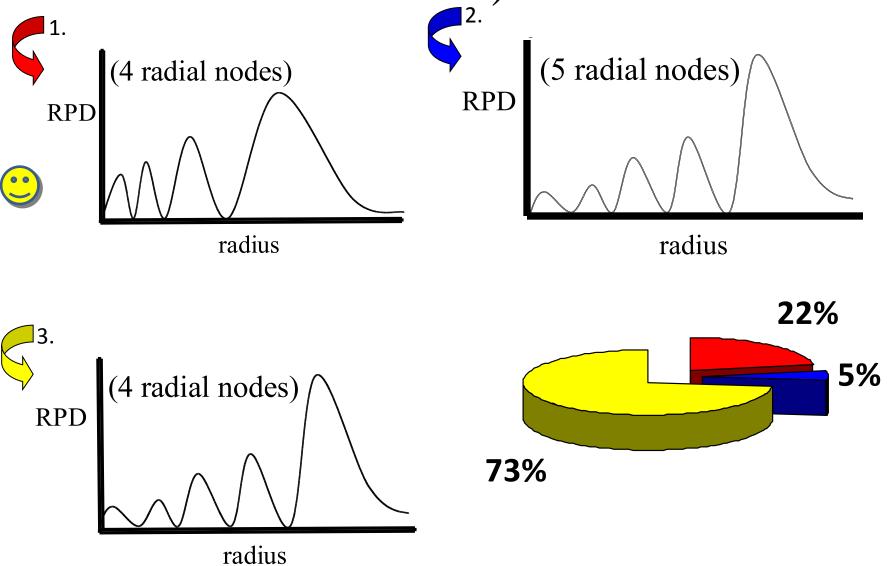


Identify the correct RPD plot (and radial node number) for a 5s orbital:





Identify the correct RPD plot (and radial node number) for a 5s orbital:

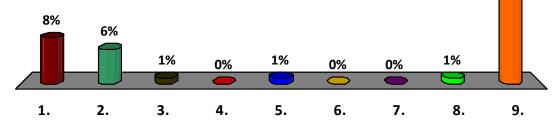


How many **radial nodes** does a hydrogen atom 3d orbital have?

- 1. One
- 2. Two
- 3. Three
- 4. Four
- 5. Five
- 6. Six
- 7. Seven
- 8. Eight
- 9. Zero

How many **radial nodes** does a hydrogen atom 3d orbital have?

- 1. One
- 2. Two
- 3. Three
- 4. Four
- 5. Five
- 6. Six
- 7. Seven
- 8. Eight
- 😲. Zero



83%

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