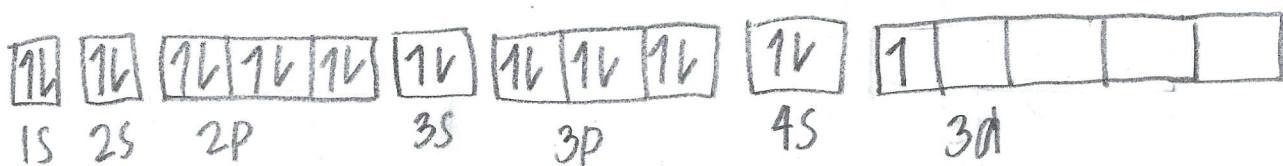


$+ \frac{3}{3}$ 
Name: KARISSA MCCRIGHT

20
Ca
40.08

1. Draw the ground-state orbital diagram for the calcium anion  $\text{Ca}^-$ .
2. Is the ionization energy of  $\text{Ca}^-$  greater than or less than the neutral calcium atom?



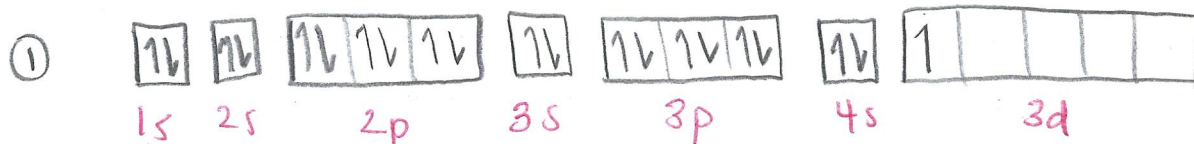
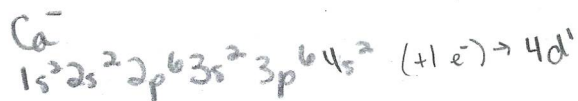
$\text{Ca}$  has a lower IE than  $\text{Ca}^-$

+3/3

Name: Brandis Richards

20
Ca
40.08

1. Draw the ground-state orbital diagram for the calcium anion  $\text{Ca}^-$ .
2. Is the ionization energy of  $\text{Ca}^-$  greater than or less than the neutral calcium atom?



- ② Ionization energy is the amount of energy required to remove an electron. Calcium has an atomic number of 20 (20 protons), so the neutral atom will have 20 electrons, while the anion  $\text{Ca}^-$  will have 21. Since the neutral atom has fewer electrons for the same number of protons, the neutral atom will have greater ionization energy (IE of  $\text{Ca}^-$  is less than neutral Ca atom).

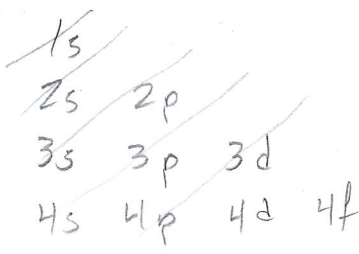
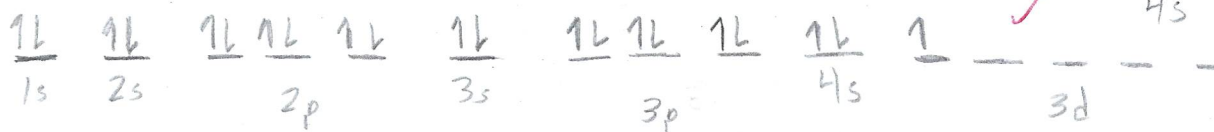
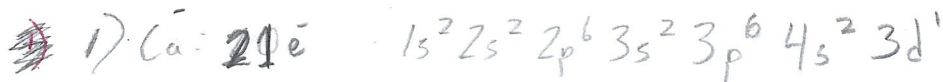
Great Answer!

$\frac{3}{+3}$

Name: Bonnie Reyes Luna

20
<b>Ca</b>
40.08

1. Draw the ground-state orbital diagram for the calcium anion  $\text{Ca}^-$ .
2. Is the ionization energy of  $\text{Ca}^-$  greater than or less than the neutral calcium atom?



2) Ionization energy <sup>of  $\text{Ca}^-$</sup>  is less than the Ionization ~~energy~~ energy of the neutral atom