

# Unknown Grading Criteria

Lab unknown scores are determined based on the proximity of your experimental result to the true value for your unknown, calculated as a percent error.

$$\% \text{ error} = \left| \frac{\text{True Value} - \text{Your Result}}{\text{True Value}} \right| \times 100 \%$$

<b>KHP Determination</b>		
% error	% of Points	Points Earned
<0.18	100	50
0.18 - 0.36	90	45
0.36 - 0.54	80	40
0.54 - 0.72	70	35
0.72 - 0.90	60	30
0.90 - 1.08	50	25
1.08 - 1.75	40	20
>1.75	30	15

<b>Magnesium Determination with EDTA</b>		
% error	% of Points	Points Earned
<0.7	100	50
0.7 - 1.4	90	45
1.4 - 2.5	80	40
2.5 - 3.9	70	35
3.9 - 5.3	60	30
5.3 - 6.7	50	25
6.7 - 8.1	40	20
>8.1	30	15

<b>Gravimetric Determination of Nickel</b>		
% error	% of Points	Points Earned
<1	100	75
1 - 3	90	67.5
3 - 4	80	60
4 - 5	70	52.5
5 - 6	60	45
6 - 7	50	37.5
7 - 8	40	30
>8	30	22.5

<b>Determination of <math>K_a</math> of Weak Acid</b>		
% error	% of Points	Points Earned
<0.2	100	50
0.2 - 0.4	90	45
0.4 - 0.6	80	40
0.6 - 0.8	70	35
0.8 - 1.2	60	30
1.2 - 1.8	50	25
1.8 - 3.0	40	20
>3.0	30	15

<b>Determination of Iron</b>		
% error	% of Points	Points Earned
<3	100	50
3 - 4.5	90	45
4.5 - 6	80	40
6 - 9	70	35
9 - 11	60	30
11 - 13	50	25
13 - 21	40	20
>21	30	15

<b>Determination of Fluoride</b>		
% error	% of Points	Points Earned
<2	100	50
2 - 4	90	45
4 - 6	80	40
6 - 8	70	35
8 - 10	60	30
10 - 12	50	25
12 - 16	40	20
>16	30	15