# Spreadsheet Assignment 4 – ADG

For this exercise students will create an Average Daily Gain workbook for livestock. Students will need to calculate the Age, Gain, and then Average Daily Gain for the livestock that were born in the spring then find the averages, median, minimum and maximum gains.

## Instructions

**Download these files:** Excel 4 Outline - ADG and ADG.xlsx.

Students are to complete the spreadsheet provided; calculate the average daily gain for livestock.

**Objectives**

- Complete calculations in workbook
- Use formulas in calculating Average Daily Gain
- Calculate Totals, Averages, Median, Minimum, Maximum, and Count

**The spreadsheet must include:**

- Edited workbook
- Completing all calculations as instructed
- Formatting of data correctly

## 1. Open workbook

1. **Download** the spreadsheet *ADG* from this assignment to your class folder.
2. **Double click** on file name to open

Or

3. **Open** spreadsheet program

**Select** *Open Other Workbooks*, find the file and open.

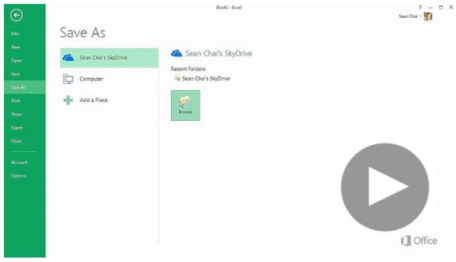

## 2. Save your spreadsheet

Save your spreadsheet the first time by selecting **save as**.

1. ***Click File > Save as***, pick or browse to the folder on the desktop you created, type a name **(lastname_ADG)** for your document in the File name box, and ***click Save***.

   Be sure to Ctrl+S often.

Video: Save and print an Excel workbook

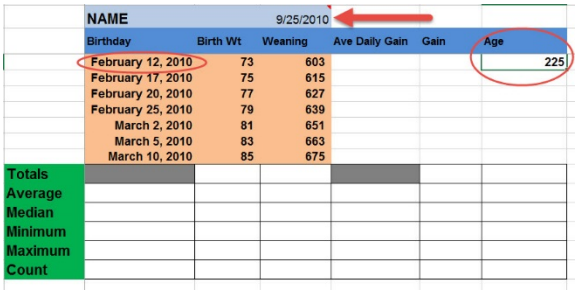


## 3. Calculate age of calves weaned

To calculate the age of calves weaned subtract the Birth date from the date of weaning.

1. Using date weaned and birthday, insert formula to determine age of calves.
2. Use F4 to make the date you weaned as your constant to help you drag down your formulas
3. Input the information as whole number of days.

Finish calculating the age of all calves.



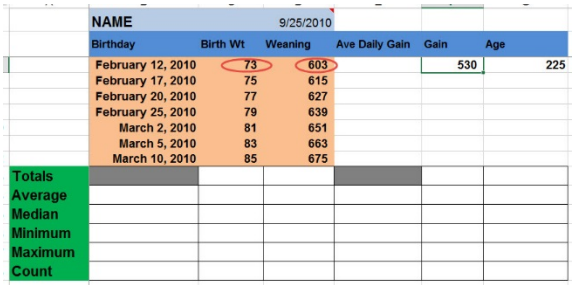
| NAME | | | 9/25/2010 | | | |
|---|---|---|---|---|---|---|
| | Birthday | Birth Wt | Weaning | Ave Daily Gain | Gain | Age |
| | February 12, 2010 | 73 | 603 | | | 225 |
| | February 17, 2010 | 75 | 615 | | | |
| | February 20, 2010 | 77 | 627 | | | |
| | February 25, 2010 | 79 | 639 | | | |
| | March 2, 2010 | 81 | 651 | | | |
| | March 5, 2010 | 83 | 663 | | | |
| | March 10, 2010 | 85 | 675 | | | |
| Totals | | | | | | |
| Average | | | | | | |
| Median | | | | | | |
| Minimum | | | | | | |
| Maximum | | | | | | |
| Count | | | | | | |

## 4. Calculate amount of weight gained

To calculate the amount of weight gained; subtract the birth weight from the weaning weight.

1. **Insert** formula for amount of weight gain by each calf.

Finish calculating the weight gain of all calves.



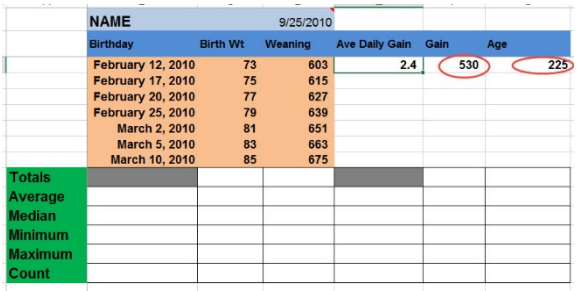
| NAME | | | 9/25/2010 | | | |
|---|---|---|---|---|---|---|
| | Birthday | Birth Wt | Weaning | Ave Daily Gain | Gain | Age |
| | February 12, 2010 | 73 | 603 | | 530 | 225 |
| | February 17, 2010 | 75 | 615 | | | |
| | February 20, 2010 | 77 | 627 | | | |
| | February 25, 2010 | 79 | 639 | | | |
| | March 2, 2010 | 81 | 651 | | | |
| | March 5, 2010 | 83 | 663 | | | |
| | March 10, 2010 | 85 | 675 | | | |
| Totals | | | | | | |
| Average | | | | | | |
| Median | | | | | | |
| Minimum | | | | | | |
| Maximum | | | | | | |
| Count | | | | | | |

## 5. Calculate average daily gain

To calculate the average daily gain; divide Gain by the Age of the calf.

1. Using Gain and Age **calculate** calf average daily gain.

Finish calculating the average weight gain of all calves.



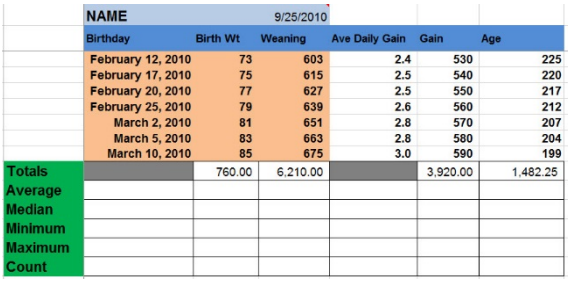
| NAME | | | 9/25/2010 | | | |
|---|---|---|---|---|---|---|
| | Birthday | Birth Wt | Weaning | Ave Daily Gain | Gain | Age |
| | February 12, 2010 | 73 | 603 | 2.4 | 530 | 225 |
| | February 17, 2010 | 75 | 615 | | | |
| | February 20, 2010 | 77 | 627 | | | |
| | February 25, 2010 | 79 | 639 | | | |
| | March 2, 2010 | 81 | 651 | | | |
| | March 5, 2010 | 83 | 663 | | | |
| | March 10, 2010 | 85 | 675 | | | |
| Totals | | | | | | |
| Average | | | | | | |
| Median | | | | | | |
| Minimum | | | | | | |
| Maximum | | | | | | |
| Count | | | | | | |

## 6. Fill in Total's values

Calculate the totals for the columns EXCEPT Birthday and Avg. Daily Gain.

1. In the Totals row, **select** the Birth Weight column cell.
2. **Create** a formula to add the cells.

**Repeat** for each column



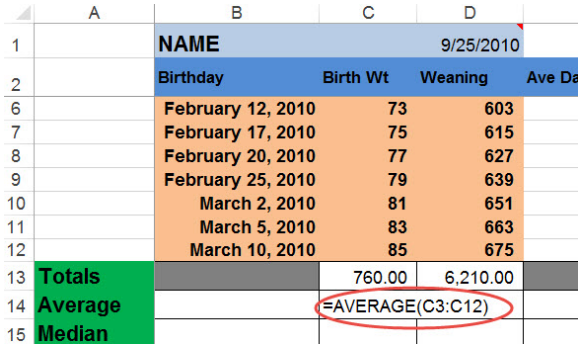
| | NAME | | 9/25/2010 | | | |
|---|---|---|---|---|---|---|
| | Birthday | Birth Wt | Weaning | Ave Daily Gain | Gain | Age |
| | February 12, 2010 | 73 | 603 | 2.4 | 530 | 225 |
| | February 17, 2010 | 75 | 615 | 2.5 | 540 | 220 |
| | February 20, 2010 | 77 | 627 | 2.5 | 550 | 217 |
| | February 25, 2010 | 79 | 639 | 2.6 | 560 | 212 |
| | March 2, 2010 | 81 | 651 | 2.8 | 570 | 207 |
| | March 5, 2010 | 83 | 663 | 2.8 | 580 | 204 |
| | March 10, 2010 | 85 | 675 | 3.0 | 590 | 199 |
| Totals | | 760.00 | 6,210.00 | | 3,920.00 | 1,482.25 |
| Average | | | | | | |
| Median | | | | | | |
| Minimum | | | | | | |
| Maximum | | | | | | |
| Count | | | | | | |

## 7. Fill in the Average values

In the Average row, calculate the average for each column (except Birthday).

**Calculate the Average for each column**

3. **Select** the cell for *Birth Weight* Average.
4. **Select** *AVERAGE* (from the list under AutoSum).
5. **Adjust range** to *exclude* the Totals cell. (Make sure it is not including the Totals in the formula).
6. **Select** Okay.
7. **Repeat** averaging the numbers for each column.



| | A | B | C | D |
|---|---|---|---|---|
| 1 | | NAME | | 9/25/2010 |
| 2 | | Birthday | Birth Wt | Weaning |
| 6 | | February 12, 2010 | 73 | 603 |
| 7 | | February 17, 2010 | 75 | 615 |
| 8 | | February 20, 2010 | 77 | 627 |
| 9 | | February 25, 2010 | 79 | 639 |
| 10 | | March 2, 2010 | 81 | 651 |
| 11 | | March 5, 2010 | 83 | 663 |
| 12 | | March 10, 2010 | 85 | 675 |
| 13 | Totals | | 760.00 | 6,210.00 |
| 14 | Average | | =AVERAGE(C3:C12) | |
| 15 | Median | | | |

The AVERAGE function adds a group of values, then divides the result by the number of values in the group.

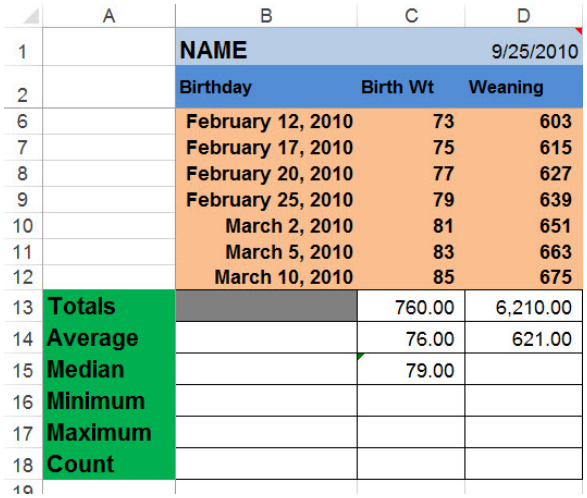
## 8. Fill in the Median values

In the Median row, calculate the median for each column (except Birthday).

**Calculate the Median value for each column**

1. **Select** the cell for *Birth Weight* Median.
2. **Select** *MEDIAN* (from the list under AutoSum).
3. **Select range** by selecting the cells or typing in the cell reference numbers.
4. **Select** Okay.

**Repeat** averaging the numbers for each column.



| | A | B | C | D |
|---|---|---|---|---|
| 1 | | NAME | | 9/25/2010 |
| 2 | | Birthday | Birth Wt | Weaning |
| 6 | | February 12, 2010 | 73 | 603 |
| 7 | | February 17, 2010 | 75 | 615 |
| 8 | | February 20, 2010 | 77 | 627 |
| 9 | | February 25, 2010 | 79 | 639 |
| 10 | | March 2, 2010 | 81 | 651 |
| 11 | | March 5, 2010 | 83 | 663 |
| 12 | | March 10, 2010 | 85 | 675 |
| 13 | Totals | | 760.00 | 6,210.00 |
| 14 | Average | | 76.00 | 621.00 |
| 15 | Median | | 79.00 | |
| 16 | Minimum | | | |
| 17 | Maximum | | | |
| 18 | Count | | | |

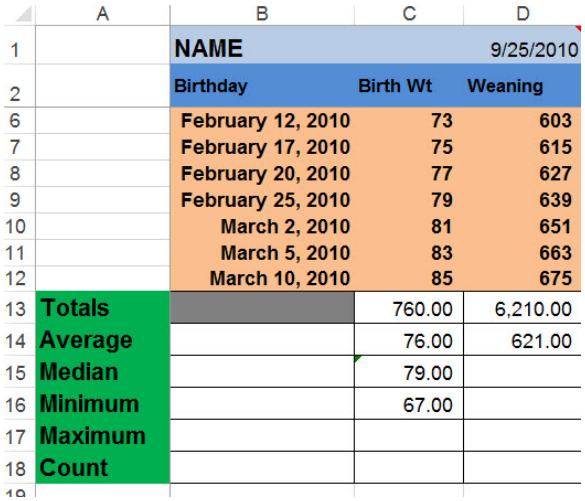
## 9. Fill in the Minimum values

In the Minimum row, calculate the minimum for each column (except Birthday).

**Calculate the Minimum value for each column**

1. **Select** the cell for *Birth Weight* Minimum.
2. **Select** *Minimum* (from the list under AutoSum).
3. **Adjust range** to exclude the Totals cell. (Make sure it is not including the Totals in the formula).
4. **Select** *Okay*.

**Repeat** for each column.



| | A | B | C | D |
|---|---|---|---|---|
| 1 | | NAME | | 9/25/2010 |
| 2 | | Birthday | Birth Wt | Weaning |
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| 8 | | February 20, 2010 | 77 | 627 |
| 9 | | February 25, 2010 | 79 | 639 |
| 10 | | March 2, 2010 | 81 | 651 |
| 11 | | March 5, 2010 | 83 | 663 |
| 12 | | March 10, 2010 | 85 | 675 |
| 13 | Totals | | 760.00 | 6,210.00 |
| 14 | Average | | 76.00 | 621.00 |
| 15 | Median | | 79.00 | |
| 16 | Minimum | | 67.00 | |
| 17 | Maximum | | | |
| 18 | Count | | | |

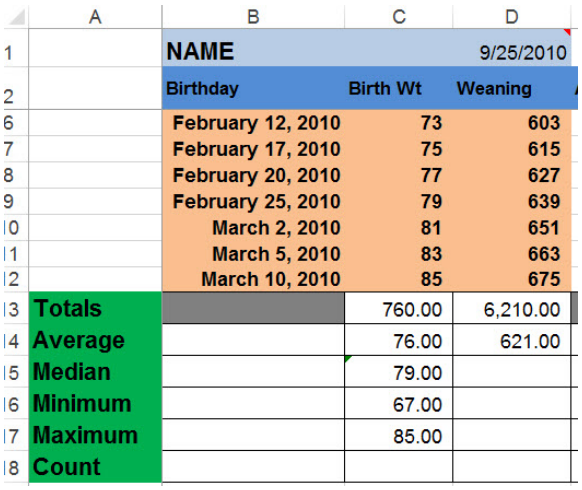
## 10. Fill in the Maximum values

In the Maximum row, calculate the Maximum for each column (except Birthday).

**Calculate the** Maximum **value for each column**

1. **Select** the cell for *Birth Weight* Maximum.
2. **Select** *Maximum* (from the list under AutoSum).
3. **Adjust range** to exclude the Totals cell. (Make sure it is not including the Totals in the formula).
4. **Select** *Okay*.

**Repeat** for each column.



| | A | B | C | D |
|---|---|---|---|---|
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| 10 | | March 2, 2010 | 81 | 651 |
| 11 | | March 5, 2010 | 83 | 663 |
| 12 | | March 10, 2010 | 85 | 675 |
| 13 | Totals | | 760.00 | 6,210.00 |
| 14 | Average | | 76.00 | 621.00 |
| 15 | Median | | 79.00 | |
| 16 | Minimum | | 67.00 | |
| 17 | Maximum | | 85.00 | |
| 18 | Count | | | |

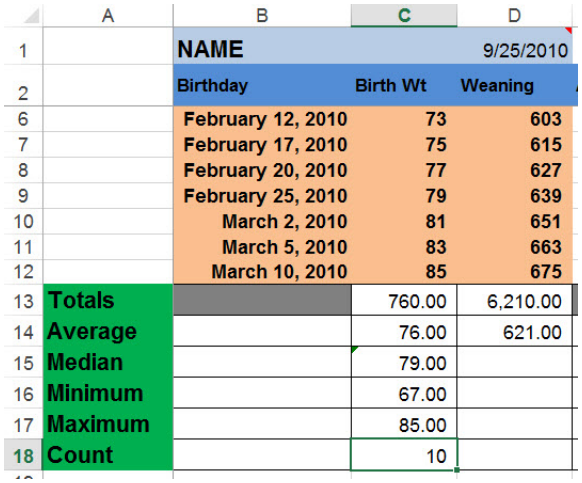
## 11. Fill in the Count values

In the Count row, calculate the Count for each column (except Birthday).

**Calculate the Count value for each column**

1. **Select** the cell for *Birth Weight* Count.
2. **Select** *Count* (from the list under AutoSum).
3. **Adjust range** to exclude the Totals cell. (Make sure it is not including the Totals in the formula).
4. **Select** *Okay*.

**Repeat** for each column



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| 13 | Totals | | 760.00 | 6,210.00 |
| 14 | Average | | 76.00 | 621.00 |
| 15 | Median | | 79.00 | |
| 16 | Minimum | | 67.00 | |
| 17 | Maximum | | 85.00 | |
| 18 | Count | | 10 | |

## 12. Add your name, make adjustments, save your work

Add your name to the worksheet, then make any adjustments to the columns and rows to make it more readable.

Click the **Save** button on the **Quick Access Toolbar**, or press Ctrl+S.

## 13. Upload file your completed spreadsheet to Excel 4 - ADG

After completion save your file one more time then upload the file to this assignment:

1. **Click on the title**
1. **Select Add Submission**
2. **Drag and drop** your file into the box or select your file to upload