

# FUNDAMENTAL SPREADSHEET APPLICATIONS (230)

## REGIONAL – 2016

*TOTAL POINTS* \_\_\_\_\_ (650 points)

**Failure to adhere to any of the following rules will result in disqualification:**

- 1. Contestant must hand in this test booklet and all printouts. Failure to do so will result in disqualification.**
- 2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile (handwritten, photocopied, or keyed) are allowed in the testing area.**
- 3. Electronic devices will be monitored according to ACT standards.**

No more than ten (10) minutes orientation

No more than 90 minutes testing time

No more than ten (10) minutes wrap-up

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*Workplace Skills Assessment Program* competition.

## General Instructions

1. Put your contestant number and printout number in the right section of the footer on each printout unless instructed otherwise. Your name or initials should NOT appear on any work you submit.
2. If you finish before the end of the testing time, notify the proctor. Time may be a factor in determining the winner in the event of a tie.
3. When turning in your contest, the jobs should be arranged in printout order.

**RUBRIC**

ON EACH ITEM CONTESTANTS EARN EITHER ALL THE POINTS OR NONE EXCEPT FOR TYPOS.

<b>Printout 1 Worksheet—Job 1</b>	<b>Possible Points</b>	<b>Total Points</b>
ITEM NO entered as a label, not a value (aligned left)	10	
Heading AMT changed to AMOUNT	10	
Main heading is merged and centered across columns of information	20	
Amount for each item is correct	20	
1 <sup>st</sup> subtotal is correct	10	
Tax amount is correct	10	
Shipping amount is correct	10	
2 <sup>nd</sup> subtotal is correct	10	
Discount is correct	10	
TOTAL is correct and is in bold	20	
Column headings are centered	10	
Printed with gridlines, column and row headings, and centered on page	30	
<b>Total Points, Printout 1</b>	<b>170</b>	
<b>Printout 2—Job 1 with Formulas Showing</b>	<b>Possible Points</b>	<b>Total Points</b>
AMOUNT column formula correct	20	
1 <sup>ST</sup> subtotal formula correct	20	
Tax formula is correct	20	
Shipping formula is correct	20	
2 <sup>nd</sup> subtotal formula correct	20	
Discount formula is correct	20	
Total formula is correct	20	
Printed showing formulas on one page	20	
<b>Total Points, Printout 2</b>	<b>160</b>	

<b>Printout 3 Worksheet—Job 2</b>	<b>Possible Points</b>	<b>Total Points</b>
Title is correct and is merged and centered above columns of information	20	
Subtitle is correct and is merged and centered above columns of information	20	
Data is entered correctly and formatted correctly	20	
Asset projections are done correctly (-5 points each error)	30	
Liability projections are done correctly (-5 points each error)	30	
Total Assets amounts correct and Total Liabilities amounts correct	20	
Net Worth amounts are correct	20	
Printed without gridlines showing and fit to one page	10	
<b>Total Points, Printout 3</b>	<b>170</b>	
<b>Printout 4 Formulas—Job 2</b>	<b>Possible Points</b>	<b>Total Points</b>
Total Assets formula correct	10	
Total Liabilities formula correct	10	
Net Worth formula correct	10	
Printed on one page	10	
<b>Total Points, Printout 4</b>	<b>40</b>	
<b>Printout 5—Job 2 Chart</b>	<b>Possible Points</b>	<b>Total Points</b>
3-D clustered column chart created	20	
Chart shows projected Total Assets, Total Liabilities, and Net Worth for years 2015-2018	30	
Chart is titled correctly	20	
Legend is placed on the right	20	
Chart created on new sheet	20	
<b>Total Points, Printout 5</b>	<b>110</b>	
<b>Total Points</b>	<b>650</b>	

**Job 1**

1. Start a new blank workbook.
2. Enter the labels and values in the exact cell locations shown in the spreadsheet below. Use the wrap text feature to format the two-line column heading.

			INVOICE		
ITEM NO	QUANT	UNIT	DESCR	UNIT PRICE	AMT
163344	5	EA	SCANNERS	129.99	
164401	2	DOZ	FLASH DRIVES	8.99	
153342	10	EA	MONITORS	125.89	
151401	6	EA	SPEAKERS	85.66	
			SUBTOT		
			TAX		
			SHIPPING		
			SUBTOT		
			DISC		
			<b>TOTAL</b>		

3. Change the heading AMT to read AMOUNT.
4. Merge and center the main heading across columns of information.
5. Calculate the AMOUNT for each item by entering a correct formula and doing a fill for the remainder of the amounts.
6. Using the proper formula, calculate the first subtotal in the AMOUNT column using a formula.
7. Using the proper formula, calculate the TAX, which is 6% of the subtotal.
8. Using the proper formula, calculate the SHIPPING at 10% of the subtotal before tax.
9. Using the proper formula, calculate the second SUBTOTAL.
10. The DISCOUNT is 2% of the first SUBTOTAL. Calculate the discount using a formula.
11. Using a formula, subtract the DISCOUNT from the second SUBTOTAL to arrive at the final TOTAL.
12. Center column headings.
13. Apply bold to the total amount and to the word TOTAL.
14. Print the spreadsheet with gridlines and column and row headings centered on the page.
15. Print again showing formulas on one page.

**Job 2**

As an employee in the financial department at Professional Business Associates, you have been asked to complete a financial review for Julie and James Jones. Please enter the following information in a new workbook:

In cell A1, enter the title **Professional Business Associates Financial Services**. Center the title across columns of data, 14-point font, bold.

In cell A2 enter **Financial Review for Julie and James Jones**. Center the title across columns of data, 12-point font, bold.

Fill in and format (text and currency) the remaining data as shown below:

				Projected			
		2014	2015	2016	2017	2018	
<b>Assets</b>							
	Home Equity	\$17,375.00					
	Car 1	\$6,500.00					
	James' and Julie's Income	\$101,500.00					
	401K	\$42,750.00					
	Savings	\$3,100.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	
	<b><u>TOTAL ASSETS</u></b>						
<b>Liabilities</b>							
	Visa 1	\$3,640.00	\$2,500.00	\$1,000.00	\$0.00	\$0.00	
	Visa 2	\$1,875.00	\$500.00	\$0.00	\$0.00	\$0.00	
	Other Credit Cards	\$255.00	\$0.00	\$0.00	\$0.00	\$0.00	
	Mortgage Payments for the Year						
	Car 2 Payments for the year						
	Utility Payments for the year						
	Contributions to 401K	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	
	Other Liabilities	\$1,200.00					
	<b><u>TOTAL LIABILITIES</u></b>						
	<b><u>NET WORTH</u></b>						

Use formulas for all calculations where appropriate.

Assets:

- Project Home Equity amount based on an annual increase of \$1,875.00.
- Project Car 1 value based on a \$1,000 depreciation amount in year 2015, another \$1,000 in 2016, and zero depreciation in years 2017 and 2018.
- Project the annual income amounts for James and Julie with annual raises of 2 percent.
- Project the value of the 401K based on an annual increase of \$5,000.00.

Liabilities:

- Project the amount of annual Mortgage Payments based on monthly payments of \$1,135.00.
- Project the amount of annual payments made on Car 2 based on monthly payments of \$325.00.
- Project the amount of annual Utility Payments made based on monthly payments of \$425.00
- Enter other liabilities at \$1,200 per year in years 2015-2018.

Using a formula, calculate Total Assets for the years 2014-2018.

Using a formula, calculate Total Liabilities for the years 2014-2018.

Using a formula, calculate Net Worth for the years 2014-2018.

Print the worksheet without gridlines showing in landscape orientation, fit to one page.

Print the worksheet showing formulas, fit to one page.

Chart:

- Create a 3-D clustered column chart on a new sheet (which compares values across categories) to show Total Assets, Total Liabilities, and Net Worth for the years 2014-2018.
- Title the chart Julie and James Jones, Projected Net Worth 2014-2018.
- Place legend at right.
- Print the chart.



# FUNDAMENTAL SPREADSHEET APPLICATIONS (230)

REGIONAL – 2016

*TOTAL POINTS* \_\_\_\_\_ (*650 points*)

**Judge/Graders: Please double check and verify all  
scores and answer keys!**

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**RUBRIC**

ON EACH ITEM CONTESTANTS EARN EITHER ALL THE POINTS OR NONE EXCEPT FOR TYPOS.

<b>Printout 1 Worksheet—Job 1</b>	<b>Possible Points</b>	<b>Total Points</b>
ITEM NO entered as a label, not a value (aligned left)	10	
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TOTAL is correct and is in bold	20	
Column headings are centered	10	
Printed with gridlines, column and row headings, and centered on page	30	
<b>Total Points, Printout 1</b>	<b>170</b>	
<b>Printout 2—Job 1 with Formulas Showing</b>	<b>Possible Points</b>	<b>Total Points</b>
AMOUNT column formula correct	20	
1 <sup>ST</sup> subtotal formula correct	20	
Tax formula is correct	20	
Shipping formula is correct	20	
2 <sup>nd</sup> subtotal formula correct	20	
Discount formula is correct	20	
Total formula is correct	20	
Printed showing formulas on one page	20	
<b>Total Points, Printout 2</b>	<b>160</b>	

FUNDAMENTAL SPREADSHEET APPLICATIONS - REGIONAL 2016

ANSWER KEY



<b>Printout 3 Worksheet—Job 2</b>	<b>Possible Points</b>	<b>Total Points</b>
Title is correct and is merged and centered above columns of information	20	
Subtitle is correct and is merged and centered above columns of information	20	
Data is entered correctly and formatted correctly	20	
Asset projections are done correctly (-5 points each error)	30	
Liability projections are done correctly (-5 points each error)	30	
Total Assets amounts correct and Total Liabilities amounts correct	20	
Net Worth amounts are correct	20	
Printed without gridlines showing and fit to one page	10	
<b>Total Points, Printout 3</b>	<b>170</b>	
<b>Printout 4 Formulas—Job 2</b>	<b>Possible Points</b>	<b>Total Points</b>
Total Assets formula correct	10	
Total Liabilities formula correct	10	
Net Worth formula correct	10	
Printed on one page	10	
<b>Total Points, Printout 4</b>	<b>40</b>	
<b>Printout 5—Job 2 Chart</b>	<b>Possible Points</b>	<b>Total Points</b>
3-D clustered column chart created	20	
Chart shows projected Total Assets, Total Liabilities, and Net Worth for years 2015-2018	30	
Chart is titled correctly	20	
Legend is placed on the right	20	
Chart created on new sheet	20	
<b>Total Points, Printout 5</b>	<b>110</b>	
<b>Total Points</b>	<b>650</b>	

FUNDAMENTAL SPREADSHEET APPLICATIONS - REGIONAL 2016  
ANSWER KEY

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Printout 1



	A	B	C	D	E	F
1	INVOICE					
2						
3	ITEM NO	QUANT	UNIT	DESCR	UNIT PRICE	AMOUNT
4	163344	5	EA	SCANNERS	\$129.99	\$649.95
5	164401	2	DOZ	FLASH DRIVES	\$8.99	\$17.98
6	153342	10	EA	MONITORS	\$125.89	\$1,258.90
7	151401	6	EA	SPEAKERS	\$85.66	\$513.96
8						
9				SUBTOT		\$2,440.79
10				TAX		\$146.45
11				SHIPPING		\$244.08
12				SUBTOT		\$2,831.32
13				DISC		\$56.63
14				TOTAL		\$2,774.69

Printout 2

	A	B	C	D	E	F
1	INVOICE					
2						
3	ITEM NO	QUANT	UNIT	DESCR	UNIT PRICE	AMOUNT
4	163344	5	EA	SCANNERS	129.99	=E4*B4
5	164401	2	DOZ	FLASH DRIVES	8.99	=E5*B5
6	153342	10	EA	MONITORS	125.89	=E6*B6
7	151401	6	EA	SPEAKERS	85.66	=E7*B7
8						
9				SUBTOT		=SUM(F4:F7)
10				TAX		=F9*0.06
11				SHIPPING		=F9*0.1
12				SUBTOT		=SUM(F9:F11)
13				DISC		=F12*0.02
14				TOTAL		=F12-F13



**Professional Business Associates Financial Services  
Financial Review for Julie and James Jones**

		2014	2015	Projected 2016	2017	2018
<b>Assets</b>						
	Home Equity	\$17,375.00	\$19,250.00	\$21,125.00	\$23,000.00	\$24,875.00
	Car 1	\$6,500.00	\$5,500.00	\$4,500.00	\$4,500.00	\$4,500.00
	James' and Julie's Income	\$101,500.00	\$103,530.00	\$105,600.60	\$107,712.61	\$109,866.86
	401K	\$42,750.00	\$47,750.00	\$52,750.00	\$57,750.00	\$62,750.00
	Savings	\$3,100.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00
	<b><u>TOTAL ASSETS</u></b>	<b>\$171,225.00</b>	<b>\$179,030.00</b>	<b>\$186,975.60</b>	<b>\$195,962.61</b>	<b>\$204,991.86</b>
<b>Liabilities</b>						
	Visa 1	\$3,640.00	\$2,500.00	\$1,000.00	\$0.00	\$0.00
	Visa 2	\$1,875.00	\$500.00	\$0.00	\$0.00	\$0.00
	Other Credit Cards	\$255.00	\$0.00	\$0.00	\$0.00	\$0.00
	Mortgage Payments for the Year	\$13,620.00	\$13,620.00	\$13,620.00	\$13,620.00	\$13,620.00
	Car 2 Payments for the year	\$3,900.00	\$3,900.00	\$3,900.00	\$3,900.00	\$3,900.00
	Utility Payments for the year	\$5,100.00	\$5,100.00	\$5,100.00	\$5,100.00	\$5,100.00
	Contributions to 401K	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
	Other Liabilities	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00
	<b><u>TOTAL LIABILITIES</u></b>	<b>\$34,590.00</b>	<b>\$31,820.00</b>	<b>\$29,820.00</b>	<b>\$28,820.00</b>	<b>\$28,820.00</b>
	<b><u>NET WORTH</u></b>	<b>\$136,635.00</b>	<b>\$147,210.00</b>	<b>\$157,155.60</b>	<b>\$167,142.61</b>	<b>\$176,171.86</b>

FUNDAMENTAL SPREADSHEET APPLICATIONS - REGIONAL 2016

ANSWER KEY

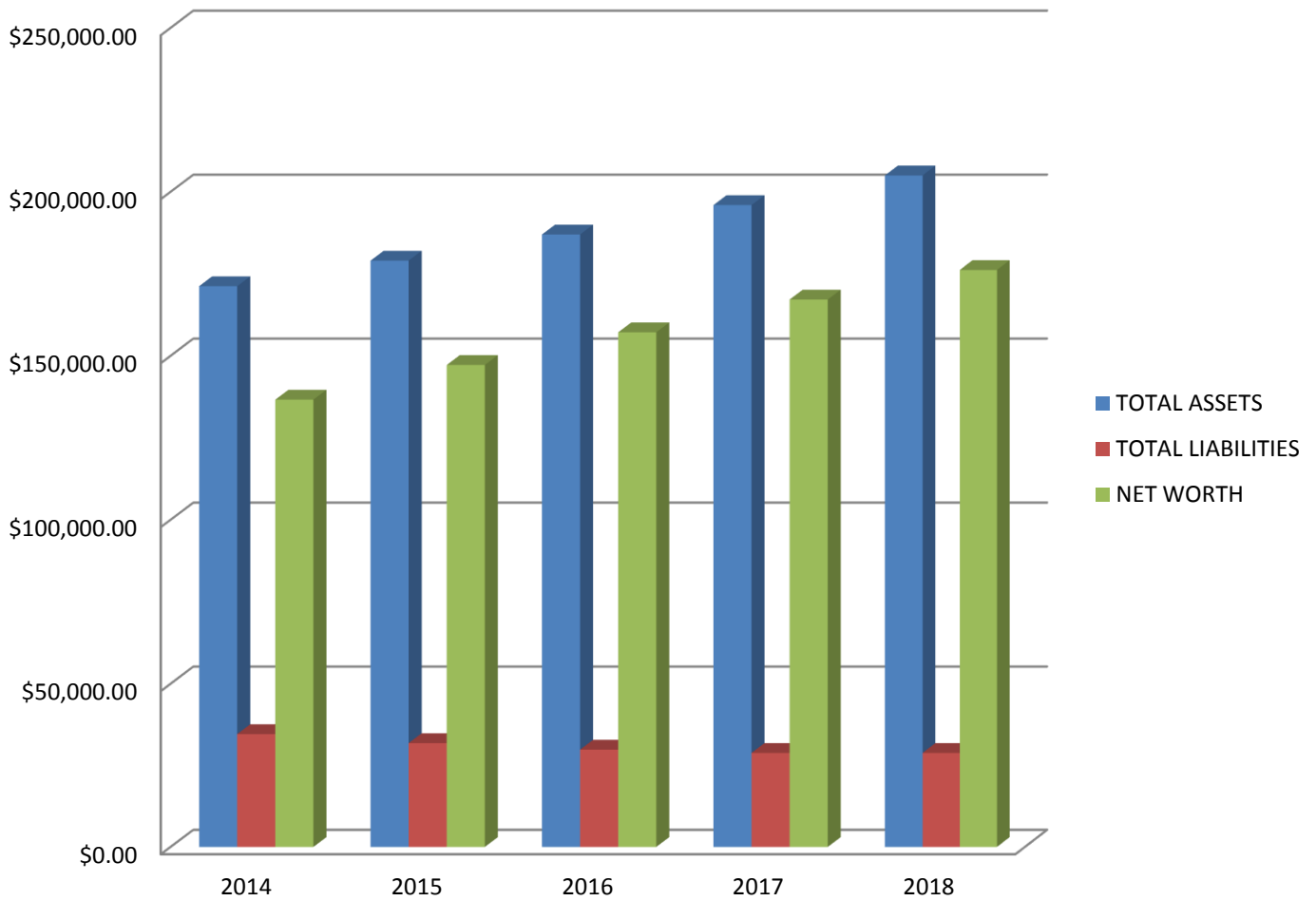


Professional Business Associates Financial Services  
Financial Review for Julie and James Jones

	2014	2015	2016	Projected 2017	2018
<b>Assets</b>					
Home Equity	17375	=C7+1875	=D7+1875	=E7+1875	=F7+1875
Car 1	6500	=C8-1000	=D8-1000	=E8	=F8
James' and Julie's Income	101500	=C9*1.02	=D9*1.02	=E9*1.02	=F9*1.02
401K	42750	=C10+5000	=D10+5000	=E10+5000	=F10+5000
Savings	3100	3000	3000	3000	3000
<b>TOTAL ASSETS</b>	=SUM(C7:C11)	=SUM(D7:D11)	=SUM(E7:E11)	=SUM(F7:F11)	=SUM(G7:G11)
<b>Liabilities</b>					
Visa 1	3640	2500	1000	0	0
Visa 2	1875	500	0	0	0
Other Credit Cards	255	0	0	0	0
Mortgage Payments					
for the Year	=12*1135	=12*1135	=12*1135	=12*1135	=12*1135
Car 2 Payments					
for the year	=12*325	=12*325	=12*325	=12*325	=12*325
Utility Payments					
for the year	=12*425	=12*425	=12*425	=12*425	=12*425
Contributions to 401K	5000	5000	5000	5000	5000
Other Liabilities	1200	1200	1200	1200	1200
<b>TOTAL LIABILITIES</b>	=SUM(C16:C23)	=SUM(D16:D23)	=SUM(E16:E23)	=SUM(F16:F23)	=SUM(G16:G23)
<b>NET WORTH</b>	=C12-C24	=D12-D24	=E12-E24	=F12-F24	=G12-G24



### Julie and James Jones, Projected Net Worth 2015-2018



	D	E	F	G	H	I
4	INVOICE					
5						
6	ITEM NO	QUANT	UNIT	DESCR	UNIT PRICE	AMOUNT
7	163344	5	EA	SCANNERS	\$129.99	\$649.95
8	164401	2	DOZ	FLASH DRIVES	\$8.99	\$17.98
9	153342	10	EA	MONITORS	\$125.89	\$1,258.90
:	151401	6	EA	SPEAKERS	\$85.66	\$513.96
;						
<				SUBTOT		\$2,440.79
43				TAX		\$146.45
44				SHIPPING		\$244.08
45				SUBTOT		\$2,831.32
46				DISC		\$56.63
47				<b>TOTAL</b>		\$2,774.69

	D	E	F	G	H	I
4	INVOICE					
5						
6	ITEM NO	QUANT	UNIT	DESCR	UNIT PRICE	AMOUNT
7	163344	5	EA	SCANNERS	129.99	=E4*B4
8	164401	2	DOZ	FLASH DRIVES	8.99	=E5*B5
9	153342	10	EA	MONITORS	125.89	=E6*B6
:	151401	6	EA	SPEAKERS	85.66	=E7*B7
;						
<				SUBTOT		=SUM(F4:F7)
43				TAX		=F9*0.06
44				SHIPPING		=F9*0.1
45				SUBTOT		=SUM(F9:F11)
46				DISC		=F12*0.02
47				<b>TOTAL</b>		=F12-F13



	D	E	F	G	H	I	J
4	Professional Business Associates Financial Services						
5	Financial Review for Julie and James Jones						
6							
7			Projected				
8			2014	2015	2016	2017	2018
9	Assets						
:		Home Equity	\$17,375.00	\$19,250.00	\$21,125.00	\$23,000.00	\$24,875.00
;		Car 1	\$6,500.00	\$5,500.00	\$4,500.00	\$4,500.00	\$4,500.00
<		James' and Julie's Income	\$101,500.00	\$103,530.00	\$105,600.60	\$107,712.61	\$109,866.86
43		401K	\$42,750.00	\$47,750.00	\$52,750.00	\$57,750.00	\$62,750.00
44		Savings	\$3,100.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00
45		<u>Total Assets</u>	\$171,225.00	\$179,030.00	\$186,975.60	\$195,962.61	\$204,991.86
46							
47							
48	Liabilities						
49		Visa 1	\$3,640.00	\$2,500.00	\$1,000.00	\$0.00	\$0.00
4:		Visa 2	\$1,875.00	\$500.00	\$0.00	\$0.00	\$0.00
4;		Other Credit Cards	\$255.00	\$0.00	\$0.00	\$0.00	\$0.00
4<		Mortgage Payments for the Year	\$13,620.00	\$13,620.00	\$13,620.00	\$13,620.00	\$13,620.00
53		Car 2 Payments for the year	\$3,900.00	\$3,900.00	\$3,900.00	\$3,900.00	\$3,900.00
54		Utility Payments for the year	\$5,100.00	\$5,100.00	\$5,100.00	\$5,100.00	\$5,100.00
55		Contributions to 401K	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
56		Other Liabilities	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00
57		<u>Total Liabilities</u>	\$34,590.00	\$31,820.00	\$29,820.00	\$28,820.00	\$28,820.00
58							
59		<u>Net Worth</u>	\$136,635.00	\$147,210.00	\$157,155.60	\$167,142.61	\$176,171.86

	D	E	F	G	H	I	J
4	Professional Business Associates Financial Services						
5	Financial Review for Julie and James Jones						
6							
7				Projected			
8			2014	2015	2016	2017	2018
9	Assets						
:		Home Equity	17375	=C7+1875	=D7+1875	=E7+1875	=F7+1875
;		Car 1	6500	=C8-1000	=D8-1000	=E8	=E8
<		James' and Julie's Income	101500	=C9*1.02	=D9*1.02	=E9*1.02	=F9*1.02
43		401K	42750	=C10+5000	=D10+5000	=E10+5000	=F10+5000
44		Savings	3100	3000	3000	3000	3000
45		<u>Total Assets</u>	=SUM(C7:C11)	=SUM(D7:D11)	=SUM(E7:E11)	=SUM(F7:F11)	=SUM(G7:G11)
46							
47							
48	Liabilities						
49		Visa 1	3640	2500	1000	0	0
4:		Visa 2	1875	500	0	0	0
4;		Other Credit Cards	255	0	0	0	0
4<		Mortgage Payments for the Year	=1135*12	=1135*12	=1135*12	=1135*12	=1135*12
53		Car 2 Payments for the year	=325*12	=325*12	=325*12	=325*12	=325*12
54		Utility Payments for the year	=425*12	=425*12	=425*12	=425*12	=425*12
55		Contributions to 401K	5000	5000	5000	5000	5000
56		Other Liabilities	1200	1200	1200	1200	1200
57		<u>Total Liabilities</u>	=SUM(C16:C23)	=SUM(D16:D23)	=SUM(E16:E23)	=SUM(F16:F23)	=SUM(G16:G23)
58							
59		<u>Net Worth</u>	=C12-C24	=D12-D24	=E12-E24	=F12-F24	=G12-G24

## Julie and James Jones, Projeted Net Worth 2014-2015

