This document was exported from Numbers. Each table was converte
objects on each Numbers sheet were placed on separate worksheets.
calculations may differ in Excel.

Numbers Sheet Name	Numbers Table Name
Title Page	Table 1
Tab A	Table 1
Tab B	Table 1
Tab C	Table 1
Tab D	Table 1
Tab E	Table 1

d to an Excel worksheet. All other
Please be aware that formula

Excel Worksheet Name

Fixed Operations 2 -

Financial Calculations and Formulas

GREEN SUBARU

Dealership

MICHAEL BOSSMANN

Student

N418

Class #

Service

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as % of Sales	%Sales Contribution
Customer Pay	$ 32,674	$ 22,213	67.98%	15.06%
Customer			0%	0.00%
Customer Other	$ 80,555	$ 60,802	75.48%	37.12%
Warranty	$ 25,047	$ 17,864	71.32%	11.54%
Warranty Other	$ 59,445	$ 42,273	71.11%	27.39%
Internal	$ 19,305	$ 14,402	74.60%	8.90%
NVI / Road Ready/ PDI			0%	0.00%
Adj. Cost Of Labor		$ -	0%	0.00%
Total	$ 217,026	$ 157,554	72.60%	100.00%

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Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P. %	72.60%

Parts To Labor Ratios

Category	Parts Sales	Labor Sales	P/L Ratio
Customer Pay	$ 47,945	$ 32,674	1.47
Customer		$ -	0.00
Customer Other	$ 127,709	$ 80,555	1.59
Warranty	$ 25,894	$ 25,047	1.03
Warranty Other	$ 58,137	$ 59,445	0.98
Internal	$ 32,717	$ 19,305	1.69
Total	$ 292,402	$ 217,026	1.35

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Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P. %	72.60%
Parts / Labor Ratio (Cust. Pay Only)	1.55

Service Department Profit Centering

Expense Category	Dollar Amount	% of Gross	Profile
Department Gross	$ 157,554		
Variable Expense	$ 48,514	30.79%	
Selling Expense		0.00%	
Personnel Expense	$ 103,959	65.98%	
Semi-Fixed Expense		0.00%	
Fixed Expense	$ 33,779	21.44%	
Unallocated Expense		0.00%	
Dealer's Salary		0.00%	
Total Expenses	$ 186,252	118.21%	
Net Profit	$ (28,698)	-18.21%	

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Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P. %	72.60%
Parts / Labor Ratio (Cust. Pay Only)	1.55
Total Service Dept. Expenses	$ 186,252

Fi

xed Absorption

			% Adj Ovhd Exp
Parts Department Total Gross	$	107,288	13.69%
Service Department Total Gross	$	157,574	20.10%
Body Shop Department Total Gross			0.00%
Total Fixed Gross Profit	$	264,862	
Total Dealership Expense	$	783,779	

Overhead Expense	$	783,779	
Total Fixed Gross Profit	$	264,862	
Total Dealership Expense	$	783,779	
Fixed Absorption Percentage		33.79%	**Guideline** 60%

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Customer Pay Gross Profit %		73.32%
Total Service Dept. G.P. %		72.60%
Parts / Labor Ratio (Cust. Pay Only)		1.55
Total Service Dept. Expenses	$	186,252

SERVICE INVENTORY ANALYSIS

	Labor Sales / Month		*Effective Labor Rates*		*Hours Billed*
Customer Pay	$ 32,674	÷	89.39	=	365.5
Customer	$ -	÷		=	0.00
Customer Other	$ 80,555	÷	89.39	=	901.2
Warranty	$ 84,492	÷	105.36	=	801.9
Internal	$ 19,305	÷	78.47	=	246.0
New Vehicle Prep	$ -	÷		=	0.00
Total	$ 217,026				2314.6

POTENTIAL

$ 217,026	÷	2314.64	=	$ 93.76				
Total labor sales for month		Total hours billed		Effective Labor Rate				
13.00	**x**	8	**x**	24.0	=	2,496.0		
# Service mechanical technicians		# Hours/Day		Working Days/Month		Hours Available to Sell		
2,496.0	**x**	$ 93.76	**=**	$ 234,031		$ 292,538.53		
Hours Available to Sell		Effective Labor Rate		Labor sales potential @100%		Labor sales potential @ 125%		

How proficient are your technicians ?

2,314.6	÷	2,496.00	=	92.73%
Total Hours Billed		Hours Available to Sell		Tech Proficiency

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Hours Per RO (RO Analysis)	2.1
Percent of One Item R.O.'s (RO Analysis)	64.00%
Customer Pay Effective Labor Rate (DMS Report)	$ 89.39
Warranty Labor Rate (DMS Report)	$ 105.36
Total Overall Effective Labor Rate	$ 93.76
Overall Technician Proficiency	92.73%

FACILITY POTENTIAL

Number of Bays		13	
	x		
Number of Days		25	
	x		
Number of Hours		9	
	x		
Effective Labor Rate	$	93.76	
		equals	
FACILITY POTENTIAL			$ 274,255

FACILITY UTILIZATION

Total Labor Sales	$	217,026	
		÷	
Facility Potential	$	274,255	
		equals	
FACILITY UTILIZATION			79.13%

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Calculating Real Cost of

$ 217,026
Labor Sales

2,315.0
Divided by Hours Billed

$ 93.75
= OELR

$ 59,472
Labor Cost

2,315.00
/ Hours Billed

$ 25.69
=Real Cost

$25.69 ÷ 24.00%
Real Cost

Labor

OWNER BASE POTENTIAL

$ 217,026		5385	x	8	=	43,080.0	
Labor Sales		5 Year Owner Base		Annual Hours Purchased		Market Potential / Hours	
$ 157,554		43,080.0	x	$ 93.75	=	$ 4,038,652	
-Labor Gross		Market Potentail/ Hours		Effective Labor Rate		5 Yr. O.B Sales Potential	
$ 59,472		$ 186,771	x	12	=	$ 2,241,256	
=Labor Cost		Avg. Mos. Labor Sales (excluding internal, PDI and NVI)		Annualized		Current Labor Sales Trend	
		$ 2,241,256	÷	$ 4,038,652	=	55.50%	
		Labor Sales Trend		5 Yr. O.B. Sales Potential		Ouch	

**Note: The industry average of 35% is very poor performance.*

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= $107.04
E.L.R. Needed to earn 76%

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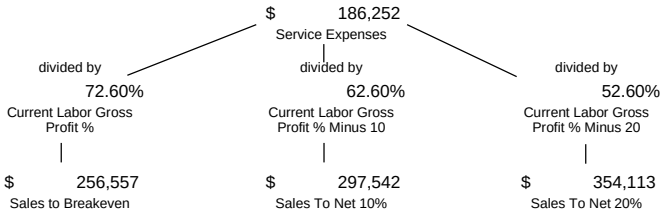
PROFIT ON LABOR SALES



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Customer Pay Gross Profit %	73.32%	Customer Pay E.L.R.	$ 89.39
Total Service Dept. G.P.%	72.60%	Total (overall) E.L.R.	$ 93.76
Parts / Labor Ratio (Cust Pay Only)	1.55	Warranty Labor Rate	$ 105.36
Total Service Dept Expense	$ 186,252	Overall Tech Proficiency	92.73%
Hours Per R.O (recap)	2.06		
Percent Of One Item R.O.'s	64.00%		

Technician Value

Calculate using daily available hours per technician

Hours		Days		Labor Rate		Sales Value
8	x	24	x	$ 93.76	=	$ 18,002

Sales Value		Gross Margin		Profit Value
$ 18,002	x	72.60%	=	$ 13,069

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Profit Value		Your Proficiency #		Adjusted Profit Value
$ 13,069	x	70%		$ 9,148
$ 13,069	x	80%		$ 10,455
$ 13,069	x	90%		$ 11,762
$ 13,069	x	100%	proficiency	$ 13,069
$ 13,069	x	110%		$ 14,376
$ 13,069	x	120%		$ 15,683
$ 13,069	x	92.7%	=	$ 12,119

STAFFING REQUIREMENTS

A. Sales To Break Even

Service Expenses for One Month		Current Gross Profit Percent	=	Sales To Break Even
$ 186,252	|	72.60%	=	$ 256,557

B. Sales To Generate 20% Net

Service Expenses for One Month		Current Gross Profit Percent (Minus 20)	=	Sales To Generate 20% Net
$ 186,252	|	52.60%	=	$ 354,113

C. Technician Value

Daily Work Hours	X	Average Proficiency Rate	X	Overall Effective Labor Rate	X	Work Days Per Month	=	Technician Value
8		80%		$ 93.76		24		$14,402
8		90%		$ 93.76		24		$16,202
8		100%		$ 93.76		24		$18,002
8		120%		$ 93.76		24		$21,603

D. Staffing To Break Even

Sales To Break Even		Technician Value	=	Staffing
$ 256,557	|	14,402 @ 80%	=	17.8
$ 256,557	|	16,202 @ 90%	=	15.8
$ 256,557	|	18,002 @ 100%	=	14.3
$ 256,557	|	21,603 @ 120%	=	11.9

E. Staffing To Generate 20% Net

Sales To Generate 20% Net		Technician Value	=	Staffing
$ 354,113	|	$ 14,402 @ 80%	=	24.6
$ 354,113	|	$ 16,202 @ 90%	=	21.9
$ 354,113	|	$ 18,002 @ 100%	=	19.7
$ 354,113	|	$ 21,603 @ 120%	=	16.4

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Service Advisor Performance

How To Set Advisor Sales Objectives To: Beak Even, Net 10%, & Net 20%

Break Even

1	Service Department's Monthly Expenses	$186,252
	|	
2	Divide by current labor gross profit % to break even	72.60%
	=	
3	Equals New Sales Objective	$ 256,557
	|	
4	Number of Advisors	4.0
	=	
5	Equals Sales Objective per Advisor	$ 64,139
	|	
6	Number of work days per month	24
	=	
7	Equals daily sales objective per advisor	$ 2,672
	|	
8	Current overall effective labor rate	$ 93.76
	=	
9	Equals daily sales objective per advisor (FRH's)	28.5

Net 10 %

1	Service Department's Monthly Expenses	$186,252
	|	
2	Divide by current labor gross profit % minus 10 to net 10%	62.60%
	=	
3	Equals New Sales Objective	$ 297,542
	|	
4	Number of Advisors	4.0
	=	
5	Equals Sales Objective per Advisor	$ 74,386
	|	
6	Number of work days per month	24
	=	
7	Equals daily sales objective per advisor	$ 3,099
	|	
8	Current overall effective labor rate	$ 93.76
	=	
9	Equals daily sales objective per advisor (FRH's)	33.1

Net 20 %

1	Service Department's Monthly Expenses	
	|	
2	Divide by current labor gross profit % minus 20 to net 20%	
	=	
3	Equals New Sales Objective	
	|	
4	Number of Advisors	
	=	
5	Equals Sales Objective per Advisor	
	|	
6	Number of work days per month	
	=	
7	Equals daily sales objective per advisor	
	|	
8	Current overall effective labor rate	
	=	
9	Equals daily sales objective per advisor (FRH's)	

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Exercise to See What Happens When You Increase Your Hours Per Repair Order

	Number of customer R.O.'s for the month				1111
		x			
	Multiply by .3 hours				0.3 hours
$186,252	Additional customer labor hours generated	=			333.30
		x			
52.60%	Multiply by Customer Labor Rate			$	89.39
$ 354,113	Equals additional Customer Labor Sales Generated	=		$	29,794
		x			
4.0	Multiply by customer Labor Gross Profit %				73.32%
$ 88,528	Equals additional Labor Gross Profit $ generated	=	(A)	$	21,844
24					
$ 3,689					
	Divide Parts Sales R.O. by Labor Sales R.O. to calculate $ parts sales per 1$ of Labor Sales	=			1.55
$ 93.76					
		x			
39.3	Multiply by Customer Labor Sales			$	29,794
		=			
	Equals additional Customer Parts Sales generated			$	46,219
		x			
	Multiply by Customer Parts Sales Gross Profit %				35.50%
	Equals additional Parts Gross Profit $ Generated	=	(B)	$	16,408
	Add Gross Profit from Labor (A) and Parts (B)	=		$	38,251

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Labor Rate Calculations

1 Calculate the **Labor Rate** for the following operation.

A/C Charge and Check

	Labor Price	$144.00	
	Hours	1.2	
		=	$0.00
Price	Hours		Labor Rate

2 Calculate the **Effective Labor Rate** for the following "Repair" operations.

Labor Operations	Labor Price		Labor Hours		Labor Rate
Clean Fuel Injectors	$ 117.60		1.20	=	
R&R Rear Hub Bearing.	$ 96.00		0.80	=	
Replace Trans. Pan gasket	$ 107.80		1.10	=	
R&R Headlight unit (1)	$ 108.00		0.90	=	
				=	$0.00
	Total Price		Total Hours		Effective Labor Rate
					(For This R.O.)

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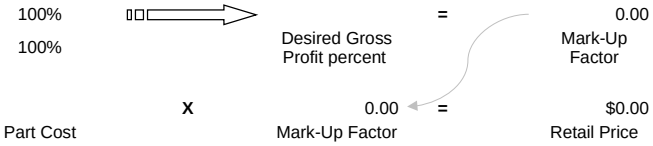
Calculating Mark-Up

3 Using the following formula, mark-up a part costing $6.72 to attain a 35% gross profit (round to the nearest cent)



4 Calculate the "Weighted Average" price at a 40% Gross Profit for the following parts (round to the nearest cent)

Item	Cost		Annual Turnover		Total Cost
Filter #1	$4.36	**X**	112	**=**	
Filter #2	$4.01	**X**	56	**=**	
Filter #3	$3.56	**X**	85	**=**	
Filter #4	$3.86	**X**	202	**=**	
Filter #5	$3.51	**X**	36	**=**	
	Total Items		491	Total Cost	$0.00

$ - Total Cost	491 Total Items	**=**	$ - Weighted Average **Cost**
$ - Weighted Average Cost	X Mark-Up Factor	**=**	$ - Weighted Average **Price**

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Cost Of A Come-Back

Lost Customer Opportunity				
Average Hours per R.O.	**X**			
	=		0.0	
Effective Labor Rate	**X**	$	93.76	
Lost Labor Sales	=	$	-	(A)
Service Department Gross Profit % (Excluding Sublet)	**X**		72.60%	
Lost Labor Gross	=	$	-	(B)
Lost Labor Sales		$	-	(A)
Parts / Labor Ratio	**X**		1.47	
	=	$	-	
Parts Dept Gross Profit % R.O.Sales	**X**			
Lost Parts Gross	=	$	-	(C)
Lost Labor Gross		$	-	(B)
Lost Parts Gross	+	$	-	(C)
Total Lost Gross	=	$	-	

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