

Pricing Your Product or Service



PRICING YOUR PRODUCTS OR SERVICES

This workbook will walk you through the various methods used to determine a profitable price for your product or service. The workbook contains step by step examples, tables to determine your specific prices, fixed costs, variable costs, and breakeven point.

Setting the right price for your product(s) or service(s) is one of the most difficult tasks facing new business owners. If your prices are too low, you may lose money. If your prices are too high, you may be unable to generate enough sales to be profitable. Before you select a method of pricing, it is important to first determine your total costs of doing business.

Every business expense you incur will fall into one of these two major cost categories: **fixed** or **variable**. The cost of doing business is determined by adding your total fixed costs and total variable costs.

Fixed costs are operating costs that stay the same and must be paid, regardless of whether or not you sell anything. For example, you would still have to pay your rent, utilities, and insurance each month, even if you had few or no sales.

Variable costs are operating costs that vary according to the amount of products or services you sell. Variable costs will be classified as either direct or indirect costs.

- a) **Direct variable costs** include only the costs you incur to buy merchandise to resell to your customers, manufacturing costs to produce goods to sell, or the cost of your time and materials to provide a service. Check out the following chart, as different types of businesses will have different types of variable costs.



Type of Business	Direct Variable Costs
Retailer	<ul style="list-style-type: none"> • Cost to purchase merchandise (generally from wholesalers) • Transportation-in (shipping costs to receive the merchandise)
Manufacturer	<ul style="list-style-type: none"> • Cost of raw materials (supplies to make your product) • Transportation-in (shipping costs to receive the raw materials) • Cost of labour to produce goods
Service Provider	<ul style="list-style-type: none"> • Cost of labour to provide billable service (includes only the actual time, that can be billed to customers) • Cost of materials and supplies used to provide the service i.e. If you offer computer-training services, you should include the cost of the training materials, including instruction manuals, handouts and supplies that will be used during training.

b) **Indirect variable costs** include all remaining operating costs that are neither fixed nor directly related to providing products and services. Examples of indirect costs are advertising costs, office supplies, postage, and bank charges. These are general expenses you would incur. They are not fixed costs and will change depending on your sales.

NOTES

Calculating your total operating costs

A worksheet entitled “Total Cost Calculation” has been provided to help you calculate your total costs. It includes basic types of business expenses. Spaces have been left for you to insert any additional costs that you may incur. Follow the steps to complete your total cost calculation.

Here are some tips before you get started:

- If you are unsure if an expense is a fixed cost, ask yourself, “Will I have to pay this expense, even if my business does not sell anything?” If the answer is yes, it is a fixed cost. If the answer is no, it is a variable cost.
- If you are unsure if an expense is a direct variable cost, ask yourself, “Is this expense part of the costs I incur to buy or make my product or in providing billable services to my customers?” If the answer is yes, it is a direct variable cost. If the answer is no, it is an indirect variable cost.

Step 1 - Calculate your direct variable costs

Worksheets have been provided on the next page to help you calculate your direct variable cost on a per unit basis. Note that there are separate worksheets for retailers, manufacturers, and service providers. Select the one most appropriate for your type of business.

The following example illustrates how to identify your direct variable costs:

Retail Business	Column 1	Column 2	Column 3
	Per Unit Cost	Projected Sales	Annual Costs
Merchandise	\$5.58 X	1,000 units =	\$5,580.00
Transportation In	\$.48 X	1,000 units =	\$ 480.00
Total Direct Variable Costs	\$6.60 X	1,000 units =	\$6,060.00
			Line B

*Merchandise is the cost of the item to the business; transportation in is the cost of shipping the merchandise to the business.

* use only the section most appropriate for your type of business (a, b or c)

(a) Retailers	Column 1	Column 2	Column 3
	Per Unit Costs	Projected Sales	Annual Costs
Merchandise			
Transportation In			
Total Direct Variable Costs			Line B
(b) Manufacturers	Column 1	Column 2	Column 3
	Per Unit Costs	Projected Sales Units	Annual Costs
Raw Materials			
Transportation In			
Direct Labour			
Total Direct Variable Costs			Line B
(c) Service Provider	Column 1	Column 2	Column 3
	Per Unit Costs	Projected Sales	Annual Costs
Direct Labour Costs			
Direct Materials/Supplies			
Total Direct Variable Costs			Line B

Once you have completed the worksheet best suited to your business, transfer the per unit costs to the total cost calculation worksheet provided.

Next, record the total number of units you intend to sell in one year in Column 2 labelled Projected Sales. Note that units may represent number of items or number of hours/days of service.

Column 1 X Column 2 will equal your total direct variable costs and will be recorded in Column 3 labelled Annual Costs.

NOTE: if you are a retailer who will sell more than one item, simply transfer your total annual cost from Column 6 on the Direct Variable Cost – Retailers worksheet to Column 3 – Line B on the total cost calculation worksheet shown here.

Step 2 - Calculate your indirect variable costs

Remember, indirect costs are things like advertising costs, office supplies, postage, and bank charges.

Indirect variable costs

	Per Unit Cost	Annual Cost
Commissions	_____	_____
Telephone	_____	_____
Office Supplies	_____	_____
Postage	_____	_____
Transportation	_____	_____
Advertising/promotion	_____	_____
Other	_____	_____
Total indirect variable costs	_____	_____ Line C

Add your indirect variable costs to your direct variable costs from Column 3:

Total Variable Costs: _____ Line D
(Line B + C = D) B + C = D

NOTES

Step 3 - Calculate your total fixed costs

Complete Section 1 by estimating your total fixed costs for the year and enter the total on Line A.

Total Cost Calculation Worksheet

Section 1 – Estimated fixed costs	Annual Costs
Rent	_____
Insurance	_____
Utilities (power, heat)	_____
Water/sewer	_____
Interest portion of loan payments	_____
Professional fees (lawyer, accountant)	_____
Office expenses	_____
Administrative salaries	_____
Phone and Internet	_____
Taxes	_____
Other (specify)	_____
Other (specify)	_____
Other (specify)	_____
Total Fixed Costs	_____ Line A

Step 4. Calculate total operating costs

Once you have completed the worksheet you can now determine your total operating costs by using the following formula:

$$\begin{array}{rcccl} \text{Fixed costs} + \text{Variable costs (Direct + Indirect)} & = & \text{Total Operating Costs} \\ \hline \text{Line A} & + & \text{Line D} & = & \text{Line E} \end{array}$$

Can you break even at these costs?

How many units will you have to sell to break even? Just how many widgets or hours of billable service does it take? A break-even analysis will answer these questions. It is important for every business to know the break-even point (BEP) because it indicates how many units you must sell before you begin making a profit. You can also use the break-even calculation to try out different selling prices.

Break even: is the point at which your total costs equal your total revenue. The three factors that will affect your break-even point are:

- Fixed costs
- Variable costs
- Selling price

Calculating your break-even point (BEP)

Now that you have determined your total fixed costs and total variable costs (direct + indirect), this calculation can be easily accomplished. Go back to these sections and bring forward your totals.

Total fixed costs	_____
Direct variable costs	_____
Indirect variable costs	_____
Total costs	_____

For the purpose of this exercise, you must also set an estimated selling price. To get started, simply insert how much you think your product might sell for. A good rule of thumb and place to start is to multiply your direct variable costs by no less than 1.5 and no higher than 2.5. For example, if the direct variable cost is \$6.00 per unit, then the price would range between \$9.00 and \$15.00 per unit.

Your estimated selling price is _____

What if I don't know my selling price yet?

You can use the above calculation to see how many units you would have to sell to break even using different prices. This exercise is one tool you might use to explore the impact of various price ranges and help you set your selling price.

For example, assume that you do not know at what price you will sell the product, but you think the market will pay somewhere between \$5.00 and \$7.00 dollars.

Your variable costs are \$2.00 per unit.

Your fixed costs are \$1,500.00

Your results are as follows:

Per Unit Selling Price	\$5.00	\$6.00	\$7.00
Variable Price Per Unit	\$2.00	\$2.00	\$2.00
Profit Per Unit	\$3.00	\$4.00	\$5.00
Total Fixed Costs	\$1,500.00	\$1,500.00	\$1,500.00
No. of units required to break even	500 units	375 units	300 units

Use the following table to try various selling prices. Use a pencil so you can re-use the table.

Break-Even Points			
Per Unit Selling Price			
Variable Price Per Unit			
Profit Per Unit			
Total Fixed Costs			
No. of units required to break even			

Why might you select one selling price over another? Well, there are several considerations in pricing your product. The most important consideration is the price customers are willing to pay for your product, but other factors may include:

- Your ability to produce or purchase units
- The length of time it would take to break even
- Your dependence on operating capital until profits are sufficient to cover operating costs
- How many units in excess of the break-even point you think you can sell
- Could you sell enough to make a sufficient profit?

What level of sales is required to reach BEP?

There are two quick ways to determine the level of sales required to break even. If you have already calculated the number of units you require to break even, simply multiply the number of units by the selling price. For example:

$$375 \text{ units} \times \$6.00 = \$2,250.00$$

The second method you might use to determine how many dollars in sales are required to break even is to calculate your contribution margin. The contribution margin (or gross margin) equals the difference between the sales and the cost of the sales. This is the amount of revenue left over after covering the variable expense. This is what is available to cover fixed costs & generate an operating profit. Let's use the same example to determine the contribution margin.

Selling Price per Unit	\$ 6.00	Line A
Direct Variable Cost per unit	<u>\$ -2.00</u>	<u>Line B</u>
Contribution Margin (Line A – Line B)	\$ 4.00	Line C

This means that for every unit you sell, you have \$4.00 available to cover your fixed costs and generate an operating profit.

What percentage of each dollar does this represent?

The percentage of each dollar available to cover fixed costs and operating profit is called the **Contribution Rate**. This is simply the contribution margin expressed as a percentage.

$$\text{Contribution rate} = \frac{\text{selling price per unit} - \text{direct variable cost per unit}}{\text{selling price per unit}}$$

$$\text{Contribution rate} = \frac{6.00 - 2.00}{6.00} = \frac{4.00}{6.00} = 66\%$$

A contribution rate of 66% means that 66% of the revenue earned by your business is available to cover your fixed costs and to contribute to operating profits. The remaining 34% is consumed by variable costs. Once you know your Contribution Margin, your break-even point can be calculated in terms of sales volume needed to break even. For example:

$$\begin{aligned} \text{Break-even} &= \frac{\text{Fixed Cost}}{\text{Contribution Margin}} \\ &= \frac{\$1,500.00}{66\%} \\ &= \$2,272.72 \end{aligned}$$

As demonstrated in the above example, \$2,272.72 is the sales required to cover fixed costs of \$1,500.00 and a margin of 66%, with nothing left over for profit.

The lower the contribution rate, the higher the sales volume needed to cover fixed costs.

The higher the contribution rate, the lower the sales volume needed to cover fixed cost.

Margins

Margin is expressed as a percentage of the selling price, rather than a percentage of cost price as in mark up calculations. You may want to choose this pricing method if you are in a business that has an industry average margin defined. If you set your selling prices according to a set profit margin, use the following formula. In the example we will assume the same direct variable costs of \$5.50 per unit and an industry average margin of 35%.

$$\frac{\text{Direct Variable Cost}}{100\% - \text{desired profit margin on sales price}} = \text{selling price}$$
$$\frac{5.50}{(100\% - 35\%)} = \text{selling price}$$
$$\frac{5.50}{(65\%, \text{ which is equal to } 0.65)} = \$8.47$$

Let's double check the 35% margin.

$$\frac{\text{Direct variable cost}}{\text{Selling Price}} =$$

$$\frac{5.50}{8.47} = 0.65,$$

$$100\% - 65\% = 35\% \text{ margin for profit}$$

Your cost per unit represents 65% of the selling price, so you must subtract 65% from 100% to find out the margin you have left for profit.

Pricing Methods:

Now that you know your total cost per unit and have experimented with several possible selling prices, preview the following methods of pricing and select the method that best suits your business in pricing your products/services.

Markup Pricing:

Markup pricing is the most common method of pricing. Markup is the percentage of the profit you make. It is the easiest and most commonly known method of pricing your product/service. This method of pricing is generally used by businesses that sell directly to customers and is expressed as a percentage of cost.

Let's say if your direct variable cost is \$5.50 for an item. You sell it for \$8.47. You make a profit of \$2.97. What is the percentage markup on this item?

$$\frac{(\text{selling price} - \text{direct variable cost})}{\text{direct variable cost}} = \text{markup}$$

$$\frac{(8.47 - 5.50)}{5.50} = \text{markup}$$

$$\frac{2.97}{5.50} = \text{markup}$$

$$54\% = \text{markup on cost price}$$

Note: This example uses the direct variable cost in the calculation. This means your markup must be high enough to first cover your fixed costs, second to cover your indirect costs and what is left over is your profit. If you use total variable cost (direct + indirect) in the calculation, this means that what is left over goes 1st to cover fixed costs and what remains is your profit. As you can see from the markup and margin calculation examples, you would be correct to say either you sell on a 54% markup or a 35% margin. Caution do not use the words "markup" and "margin" interchangeably, they mean different things.

Notes

Competition Based Pricing:

You may also set your price based on what the competition is charging for similar products or services. The key here is similar. If your competition has been around for a while, they have probably learned how much a customer is willing to pay.

<u>Your Price Compared to Competition</u>	<u>Risks Associated</u>
Price Exactly the Same	They may undercut your price
Price Lower	Customers may think that your product must be inferior if it is too much cheaper than the competition
Price Higher	May not generate enough sales

***If you are setting your pricing according to the competition, you generally do not want to be too much higher or lower in price than they are, unless your product is very different or unique.

Suggested Retail Price:

Many wholesalers or manufacturers will provide their dealers with a suggested selling price. This is particularly common in automotive, agricultural and other parts businesses. The dealers provide you with a list or book of prices that tell you how much the item costs you and how much it should sell for.

Demand-Based Pricing:

Prices can be set based on demand for your product and services. The higher the demand and the lower the supply, the higher your price can be and vice versa. You may also choose to lower your price to generate more sales. Generally, if your price is lower, sales volumes increase. If your price is higher, sales volumes decrease. Make sure that an increase or decrease in price will actually make you more profit. Pay particular attention to possible increases in your direct variable costs.

Target Based Profit Pricing:

This method of pricing is used to reach a specific profit for a specific period of time. Calculate exactly how much profit you need to make in one year. Divide this number by the number of hours (service) or the number of units (products) you would have to sell in order to meet your profit objective. If the number is reasonable, you may choose to use this pricing method.

New Product Pricing:

Pricing a new product is difficult because you do not yet know how much the market will pay. Many businesses choose to set a higher price to start with to “skim” the market. Skim pricing gives you several advantages:

- Ability to test the market
- Your break-even point would be lower
- A lower sales volume may be more suited to your production capacity

If you select this method, remember that once you skim the market, you can always adjust your price to penetrate the market.

Distribution cost pricing:

Manufacturers who wholesale their product to other distributors must take into account the percentage each “middleman” needs to make. Always check with potential distributors before you finalize your pricing, so you understand how much of a mark up or margin they need in order to make it worth their while to carry the product.

Notes

Which method will you use to calculate your selling prices?

- Cost plus pricing _____
- Margin-based pricing _____
- Suggested retail pricing _____
- Competition based pricing _____
- Demand based pricing _____
- Target based pricing _____
- New product pricing _____
- Distribution cost pricing _____

Calculate the selling price for each product or service your business will offer customers using the method selected above. Now that you know what your cost and selling prices are, go back and recalculate your BEP. You may find that your selling price may have to be adjusted or that you need to find a way to bring your costs lower.

You also want to make sure that your selling price fits your business' image. If you're creating an image for a high-class jewellery store, your customers expect your prices to be higher. If you're a clearance centre, customers expect to find low prices.

One final note about pricing. Regardless of your total costs and your set selling price, always remember that you can only charge as much as the market will pay.

NOTES

Direct Variable Cost Worksheet

RETAILERS

The direct variable cost for a retailer is the cost to purchase merchandise. You may sell only one item or many items. If you sell one item, complete steps 1 to 4 and then transfer your per unit cost information to the total cost calculation worksheet. However, if you intend on selling many different items, complete steps 1 through 9 and simply transfer your total annual direct variable cost to the appropriate section in the total cost calculation worksheet.

For example, John purchased a gas bar & convenience store. All his goods are purchased from wholesalers.

1. John lists all the merchandise he will sell in Column 1 labelled merchandise.
2. He enters the minimum quantity he can order in Column 3 labelled quantity. For example, his wholesaler will not let him buy 1 jug of antifreeze, he must buy one case, which contains 4 jugs.
3. John calculates his total cost to purchase the goods, including transportation charges and records the total cost to purchase in Column 2.
4. He divides Column 2 by Column 3 to arrive at his per unit cost.
5. The per unit cost is then recorded in Column 4.
6. John enters the total number of units that he expects to sell in one year in Column 5.
7. He times Column 4 by Column 5 to arrive at the annual direct variable cost.
8. The annual direct variable cost is entered in Column 6.
9. All the figures in Column 6 are then added to reach his total direct variable cost for the year.

Direct Variable Cost Worksheet
SERVICE PROVIDERS

If you intend to provide a service to your customers at a daily or hourly rate, you need to start making certain assumptions about:

- How much money you would like to earn in one year
- The number of days per year that you want to work, and
- The number of billable days or hours you might have

Once you've made these assumptions & completed the exercises, you should then compare your proposed rate to industry averages & your competitors. Read the following example before you get started.

Example:

Jane is thinking about starting her own business as a bookkeeper. In order to support her family, her own business would have to generate enough profit to give her \$30,000.00 per year. She thinks this is reasonable but has no idea how much she would have to charge per hour to meet her target.

Jane uses the following steps to help her determine her daily and hourly:

Step 1: Determine how much money Jane would like to earn in one year

Jane's proposed annual salary: \$30,000.00 Line A

Step 2: Determine how many days per year Jane intends to work

<u>Total no. of days in year</u>	<u>No. of days Jane will not work (Sundays, Statutory Holidays...)</u>	<u>No. of days Jane will work in one year</u>
365	113 (weekends + Statutory Holidays)	252 (Line B)

Step 3: Determine how many days Jane will spend providing service to clients.

Jane assumes that 25% of her time will be spent on day-to-day operations of her business, doing things such as filing, answering phones, advertising, and doing her own books. This time cannot be billed out to clients. The remaining 75% will be the spent providing service to clients. This represents her billable time.

$$\begin{array}{rclcl} \text{No. of Working} & & & & \\ \text{Days per year} & \times & \text{\% of billable time} & = & \text{No. of billable days} \\ \hline 252 \text{ days} & \times & 75\% & = & 198 \text{ days} \\ \text{Line B} & & \text{Line C} & & \text{Line D} \end{array}$$

Now that Jane has made her assumptions, she can calculate her daily & hourly rates.

Step 4: Determine Jane’s daily charge rate

Daily Charge Rate Calculation:	Line A divided by Line D = Line E
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$$\begin{array}{rclcl} \frac{30,000.00}{\text{Line A}} & \text{divide by} & \frac{198}{\text{Line D}} & = & \frac{\$151.52}{\text{Line E}} \end{array}$$

Based on these assumptions, Jane’s daily charge rate would be \$151.52. She may choose to round off the daily charge rate to \$153.00 per day.

Notes

Step 5: Determine Jane's hourly charge rate

Jane will have to set office hours even though she is working from home. She intends to keep traditional hours & work at her business between 9:00am to 12:00pm & 1:00pm to 5pm.

Number of hours Jane is working per day is 7 (Line F)

An hourly rate calculation is determined by dividing the daily rate by the total number of working hours in your day.

Hourly Rate Calculation:	Line E divided by Line F = Line G
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$$\frac{\$151.52}{\text{Line E}} \quad \text{divided by} \quad \frac{7}{\text{Line F}} \quad = \quad \frac{\$21.65}{\text{Line G}}$$

Based on these assumptions, Jane's Hourly Charge Rate would be \$21.65. She may choose to round the hourly charge rate to \$22.00 per hour or reconsider her rate completely as explained below.

Step 6: Determine if the rate is reasonable

Jane thinks that \$21.65 per hour is too high, as she already knows that other bookkeepers in the area are charging anywhere from \$12.00 to \$20.00. Jane decides that she will have to charge less if she is going to attract enough clients to make her business work. She knows she will have to take another look at her assumptions and choose to either:

- Increase the hours in her workday
- Increase the number of days she would work in a year, or
- Find ways to cut costs at home so she will not need as much money to support her family

Jane decides that her family cannot live on less, so she will have to extend her hours of operation.

Direct Variable Cost Worksheet MANUFACTURERS

If you intend to manufacture your own product, you need to start by determining your:

- Cost of raw materials
- Cost of shipping for raw materials (transportation-in)
- Cost of direct labour

For example, Susan runs a small manufacturing company. She builds crates for an upscale chain of stores. She knows roughly what her raw materials cost her, including getting the raw materials shipped to her place of business. However, she does not pay herself a wage yet, and even if she did, she is not sure how much it should be. Susan starts by determining the costs of raw materials, including the cost of shipping and handling to get the products to her place of business.

Raw Materials	No. required for each unit	Purchase price by unit of measurement	Raw Material Cost
Crate	1	8.66 each	8.66
Hinges	4-6" pieces	9.40 per 6' lengths	3.13
Screws	30	2.50 per 100	0.75
Labels	2	58.00 per 500	0.12
Shipping Box	1	258.00 per 100	2.58
Total Cost	1 unit		\$15.24

(*includes transportation-in)

Use the following worksheet to help you determine your cost to manufacture one unit. If you manufacture more than one product, photocopy the attached worksheet and complete the exercise for each product. Depending on the number of units you manufacture, this may seem like a tedious task. However, it is extremely important that you know your exact cost per unit before setting your prices. Those who guess may end up selling products at a loss!

1. How much time it takes to produce one unit? _____ Line A
(In minutes/hours/days)

2. Insert how much you intend to pay yourself or your staff on an hourly or daily basis.
_____ Line B

Direct Labour Cost:

If Line A is in hours, use calculation #1

If Line A is in minutes, use calculation #2

If Line A is in days, use calculation #3

Calculation #1:

Example: If it takes 1.25 hours to produce one unit, and this person makes \$12.00 per hour, the labour cost to produce one unit would be calculated as follows:

<u>1.25 hours</u>	X	<u>\$12.00</u>	=	<u>\$15.00</u>
Line A		Line B		Line C
No. of Hours		Hourly Wage		Cost to Produce One Unit

Your calculation:

_____	X	_____	=	_____
Line A		Line B		Line C

Notes

Calculation #2:

Example: If it takes 22 minutes to produce one unit and this person makes \$12.00 per hour, the labour cost to produce one unit would be calculated.

$$\begin{array}{rcccl} \underline{\$12.00} & & \times & \underline{22} & \text{divided by} & \underline{60} \\ \text{Line B} & & & \text{Line A} & & \text{Number of} \\ \text{Hourly Wage} & & & \text{No. of minutes} & & \text{minutes per hour} \\ & & & & & \\ = & \underline{\$4.40} & & & & \end{array}$$

Line C (Cost to produce one unit)

Your calculation:

$$\begin{array}{rcccl} \underline{\hspace{2cm}} & & \times & \underline{\hspace{2cm}} & \text{divided by} & \underline{60} \\ \text{Line B} & & & \text{Line A} & & \text{minutes/hour} \\ & & & & & \\ = & \underline{\hspace{2cm}} & & & & \\ & \text{Line C} & & & & \end{array}$$

Calculation #3:

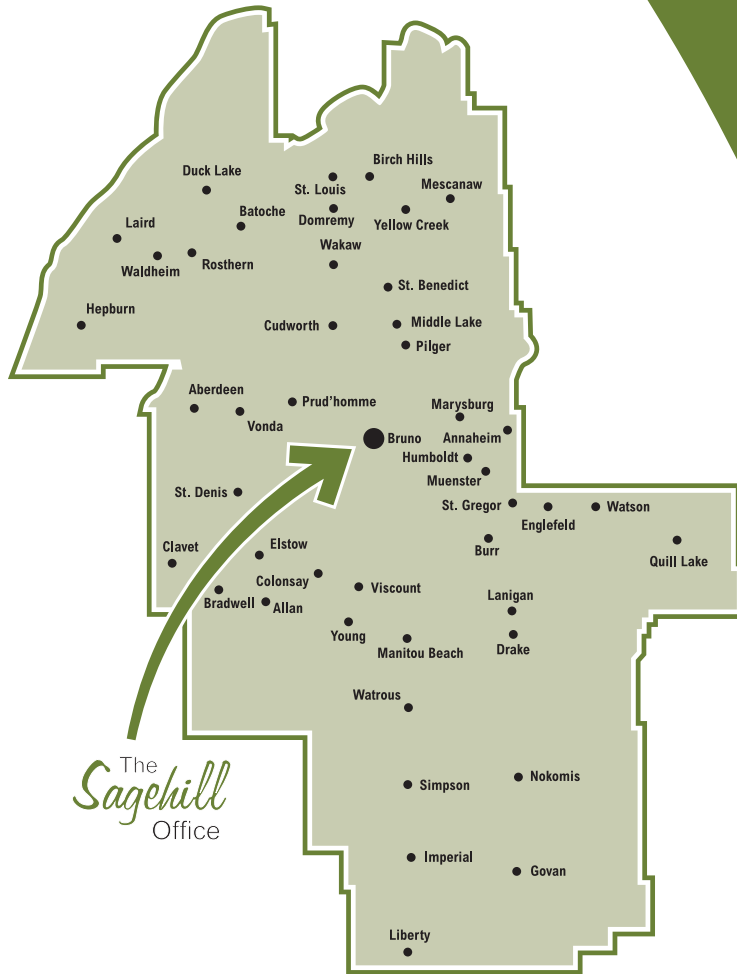
Example: If it takes 2.5 days to produce one unit and this person makes 12.00 per hour and works a 7-hour workday, the labour cost to produce on unit would be calculated in two steps:

$$\begin{array}{rcccl} \underline{2.5} & & \times & \underline{\$84.00} & = & \underline{\$210.00} \\ \text{Line A} & & & \text{Line B} & & \text{Line C} \\ & & & (\$12.00 \times 7 \text{ hrs}) & & \end{array}$$

Your calculation:

$$\begin{array}{rcccl} \underline{\hspace{2cm}} & & \times & \underline{\hspace{2cm}} & = & \underline{\hspace{2cm}} \\ \text{Line A} & & & \text{Line B} & & \text{Line C} \end{array}$$

Notes



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