



# *Alternative Ways to Earn Money*





A person who works for him or herself rather than for an employer





# Piecework

When someone is paid a set rate for an amount produced

- a piecework plan pays an employee on the basis of the number of articles produced or how much gets done.
- examples of this type of work include...
  - manufacturing items, forestry jobs (commercial thinning, trail cutting), mowing lawns, fishing, delivering flyers, etc...



## Commission

An amount  
( usually a percentage )  
paid to someone  
for a business transaction

- an incentive plan where an employee receives a percentage of their total sales.
- examples of occupations include car/furniture/clothing sales people, real estate agents, etc...

# Contract

A legal agreement that outlines term, conditions, and payments for work to be done

**NOTE:** *In a contract, you get the same pay regardless of how many hours it may take to finish the job.*





### MATH ON THE JOB

Henry is a Red Seal carpenter, which means he is certified to work in any province or territory in Canada. He works as a kitchen cabinet installer in and around his hometown of Montague, Prince Edward Island. He is a **self-employed** journeyman who is paid on a **piecework** basis by the cabinet companies he works for.



Henry must keep accurate records of his work to ensure he is paid correctly.

In the piecework system used by one company, each installed cabinet is assigned a point value. For example, a standard upper or lower cabinet is worth one point. This includes hanging the cabinet and installing its door and hardware such as hinges and door handles. Larger cabinets are worth two points, for example, tall pantry cabinets. The toe kick for each lower cabinet is worth half of one point and so is the crown moulding installed along the top of the upper cabinets. One point is assigned a dollar value, in this case, \$16.00, and the whole kitchen installation payment is calculated by adding up the number of points and multiplying by the dollar value of a point.

If Henry installs a kitchen that contains 6 standard upper cabinets with crown moulding, a pantry cabinet with crown moulding and a toe kick, and 5 standard lower cabinets, each with a toe kick, how much will he be paid for installing that kitchen?

$$\begin{array}{r}
 6 \\
 + \quad 3 \\
 + \quad 2 \\
 + \quad \frac{1}{2} \\
 \hline
 \frac{1}{2} + 5 + 2\frac{1}{2} = 19\frac{1}{2} \text{ points} \\
 (\text{cost} \Rightarrow) 19.5 \times 16 = \$312
 \end{array}$$

#### SOLUTION

Calculate the points for the standard cabinets.

$$6 \text{ upper} + 5 \text{ lower} = 11 \text{ cabinets}$$

$$11 \text{ cabinets} \times 1 \text{ point} = 11 \text{ points}$$

Calculate the other points.

$$7 \text{ crowns} + 6 \text{ toe kicks} = 13$$

$$13 \text{ items} \times 0.5 \text{ points} = 6.5 \text{ points}$$

$$\text{pantry} = 2 \text{ points}$$

Calculate the total number of points.

$$11 + 6.5 + 2 = 19.5$$

Multiply the total points by the dollar value.

$$19.5 \times \$16.00 = \$312.00$$

Henry will be paid \$312.00.

**SELF-EMPLOYMENT***Advantages*

- freedom to select appealing jobs
- ability to set own hours
- able to take time off when desired
- you're your own boss
- you may prefer working alone

*Disadvantages*

- may not have enough clients
- you may not like self-promotion
- you may not like bookkeeping
- you may find working alone lonely
- you don't get paid holidays or benefits

**PIECEWORK***Advantages*

- can earn more if you work quickly
- clear relationship between output and wages
- wages based on your performance

*Disadvantages*

- will earn less if you don't work quickly
- you may be tempted to take shortcuts
- you may be tempted to ignore safety procedures
- quantity emphasized over quality

# Self Employed

# VS

# Piecework

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**EXAMPLE #1:**

A car salesman earns 2% commission on all of his total sales and also receives a base salary of \$10/hour. Yesterday, he sold a Nissan Quest for \$40 000 and worked 8 hours. What is his gross pay for that one day?

$$\text{Reg Pay} \rightarrow 8 \times \$10 = \$80$$

$$\text{Commission} \Rightarrow \frac{2\% \text{ of } 40000}{100}$$

$$\begin{array}{r} 0.02 \times 40000 \\ + \quad \$80 \\ \hline \text{Gross } \$880 \end{array}$$

## DISCUSS THE IDEAS

### HOME RENOVATION CONTRACTS

You have a home renovation business that specializes in adapting existing homes for people with disabilities.

1. How would you calculate how much to charge customers for the renovations they are requesting?
2. If you bid on a contract with a price of \$14 500.00 and your potential client requests a reduction of 8% to match a lower bid, what would your new bid be?
3. Would you consider making this reduction? Why or why not? What factors would you take into account?
4. What would you set as a payment schedule? What is your reasoning?
5. Why do you think the homeowner would prefer to pay on a contract basis rather than an hourly basis?



*Installing ramps makes homes more accessible for people who use wheelchairs.*

#### SOLUTIONS

1. To calculate how much to charge you would need to produce a design, calculate all materials needed to build the design, cost the materials, estimate your hours, consider any subcontracting costs that may be involved, add in an amount for contingencies, and a percentage for profit.
2. Calculate 8% of the price and subtract it from the original estimate to get the revised bid.
 
$$\$14\,500.00 \times 0.08 = \$1160.00$$

$$\$14\,500.00 - \$1160.00 = \$13\,340.00$$
 The revised bid would be \$13 340.00.  
 Alternatively, if the revised bid is 8% less than the original, it will be 92% of the original.
 
$$\$14\,500.00 \times 0.92 = \$13\,340.00.$$
3. In deciding whether to make a lower bid, you would consider the cost of materials and labour (whether you have employees or work alone), how much profit was built into the initial bid, whether you have plenty of other work lined up, and so on.
4. You might ask for the cost of the materials to be paid up front and the labour to be paid in two installments, halfway through the job and at the end. You need to buy the materials before you begin, so passing this cost on to the customer at the beginning is a good idea. If the job will take more than two weeks, getting interim payments will allow you to pay yourself as you go.
5. The homeowner would probably prefer to pay on a contract basis because he or she would know in advance how much the complete job will cost. If builders work on contract, the job is likely to proceed more quickly than if it is paid on an hourly basis.

**EXAMPLE #2:**

Hien is a painting contractor. He negotiates a contract with a homeowner to paint the exterior siding on a house at a rate of \$30.00/h plus the cost of materials. It takes Hien six 8-hour days to prepare and paint the siding, and he uses 15 gallons of paint that cost \$45.00 each. What is the total value of the contract?

$30 \times 6 \times 8$	1440
$15 \times 45$	675
$1440 + 675$	2115
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## HOMEWORK...

Check out pages 69 and 70.

Questions 1 to 7

**2.2 Build Your Skills Detailed Solutions.pdf**



**Worksheet - Alternative Ways to Earn Money.pdf**



## Attachments

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2.2 Build Your Skills Detailed Solutions.pdf

Worksheet - Alternative Ways to Earn Money.pdf