# P2W Skills for Success Activity Set 17: Cost Calculations 

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04 Adult Learning and Employment Programs

## 17.1: Getting Started

What?
Calculating costs may include several calculations.


Why?
To see the complete cost of items
Who?
$\checkmark$ Servers calculate the cost of customers' orders.
$\checkmark$ Office managers use order forms showing prices and applicable taxes when they restock office supplies.
$\checkmark$ Accounts payable clerks check the accuracy of invoices before processing payments.

What's

- Multiplying quantities and costs
involved?
- Calculating subtotals and totals
- Calculating taxes
- Calculating discounts

How about you?


List some situations when you have calculated costs.
1.
2.
3.

4
5.

How comfortable are you using these skills?

Review the order form, then answer the questions below.

-Who do you think uses an order form like this?
-Why do they use it?

## 17.2: Order Form A

Refer to the order form to answer the questions below.

1. What size is the vegetable tray the customer is ordering?
2. How much does the meat and cheese platter cost that the customer ordered?
3. What is the most expensive item the customer is ordering?
4. What date is the order to be delivered?
5. Where should the order be delivered?
6. Who took down the customer's order?
7. Why is the pick-up date and time section left blank?
8. Fill in the costs, subtotal and total on the form.

Review the order form, then answer the questions below.

## STATIONERY \& SUPPLIES ORDER FORM

| ${ }^{* *}$ For Business Mart orders only** |  |  |  |  |  |
| :---: | :---: | :--- | :---: | :---: | :---: |
| Page \# | Item \# | Description | QTY | Unit Price | Total |
| 48 | $027-01$ | BOX LG. PAPER CLIPS | 5 | .80 |  |
| 112 | $022-99$ | WRITING PADS - 8-1/2 X 11" | 10 | 1.99 |  |
| 141 | $961-03$ | FILE CABINET | 1 | 269.90 |  |
| 46 | $028-60$ | BOX PENCILS - MEDIUM |  |  | 4.65 |
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## Let's Talk!

Compare this order form with others you have seen.

- What are the similarities and differences?

Refer to the order form to answer the questions below.

1. What is the least expensive item on the order form?
2. How much does the file cabinet cost?
3. How many boxes of pencils are being ordered?
4. What page of the catalogue are the writing pads found on?
5. What is the item number for the paper clips?
6. Fill in the line totals and subtotal.
7. Calculate and fill in the sales tax and total. Use the sales tax rate that applies in your province or territory.

Review the invoices, then answer the questions below.

| Healthy Cupboard, Healthcare Facilities' Supplies Order date: December 7,20 |  | INVOICE 01975 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Code | Description | Qty | Price | Cost |
| 012-1 | antiseptic spray | 3 | 23.50 | 70.50 |
| 012-4 | disinfecting hand wash | 4 | 30.21 | 120.84 |
| 016-4 | large bandages |  | 25.00 | 75.00 |
| 016-2 | medium bandages | 3 |  | 65.01 |
| 018-5 | skin care lotion | 4 | 17.06 | 68.24 |
| 016-1 | small bandages | 5 | 17.00 | 85.00 |
|  |  |  | TOTAL |  |


| Healthy Cupboard, Healthcare Facilities' Supplies Order date: December 14, 20 |  | I to account: Lakeview 011-3 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Code | Description | Qty | Price | Cost |
| 012-1 | antiseptic spray | 2 | 23.50 | 47.00 |
| 012-4 | disinfecting hand wash | 3 | 30.21 | 90.63 |
| 016-4 | large bandages | 3 | 25.00 | 75.00 |
| 016-2 | medium bandages | 3 |  | 65.01 |
| 018-5 | skin care lotion | 5 | 17.06 | 85.30 |
| 016-1 | small bandages | 4 | 17.00 | 68.00 |
|  |  |  | TOTAL | \$430.94 |


| Healthy Cupboard, Healthcare Facilities' Supplies Order date: December 24, 20__ |  | INVOICE 01986 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Code | Description | Qty | Price | Cost |
| 012-1 | antiseptic spray | 3 | 23.50 | 70.50 |
| 012-4 | disinfecting hand wash | 4 | 30.21 | 120.84 |
| 016-4 | large bandages | 5 | 25.00 | 125.00 |
| 016-2 | medium bandages | 3 |  | 65.01 |
| 018-5 | skin care lotion | 4 | 17.06 | 68.24 |
| 016-1 | small bandages |  | 17.00 | 119.00 |
|  |  |  | TOTAL | \$568.59 |

## Let's Talk!

- Can you think of occupations in which workers prepare invoices?
- Who do you think reviews completed invoices?
- What purpose do invoices serve at work?
- What are the similarities and differences between order forms and invoices?

Refer to the invoices to answer the questions below.

1. What is the total amount of the December 7 invoice?
2. On December 7, how many packages of large bandages were ordered?
3. How much does one package of medium bandages cost?
4. On December 24 , how many small bandages were ordered?
5. As a holiday offer, Healthy Cupboard plans to give Lakeview a $10 \%$ discount on the December 24 invoice. Calculate the discount Lakeview will receive.
6. On January 1 st, the cost of antiseptic spray will decrease by $\$ 5$. How much will it cost to purchase 4 antiseptic sprays in January?
7. On January 1 st, the cost of large bandages will increase by $20 \%$. How much will one package cost in January?

Discounts and taxes

Discounts are often expressed as percentages. For example, sale prices are often displayed as a percentage off the regular price.


Tax rates are always expressed as percentages.
What are
percentages?

Percent means out of 100 or "for every 100 ".
So, a $50 \%$ discount means that you save $\$ 50$ on every $\$ 100$.
And, a $15 \%$ tax rate means that you need to pay $\$ 15$ dollars in taxes for every $\$ 100$ you spend.

How do you calculate discounts and taxes?

1. Convert the percentage to a decimal by either dividing the percent by 100 or by moving the decimal two places to the left.
2. Multiply the cost of the item by the decimal value. The result is the amount of the discount or the amount of the taxes.

## Example:

The regular price of safety boots is $\$ 160$ and they are on sale for $30 \%$ off. The tax rate is $12 \%$.

Here's how you calculate the sale price:

| 1. Convert the percentage to a decimal. | $30 \%=.3$ |
| :--- | :--- |
| 2. Multiple the regular price by the decimal value to <br> figure out the amount of the discount. | $\$ 160 \times .3=\$ 48$ |
| 3. Subtract the amount of the discount from the <br> regular price to calculate the sale price. | $\$ 160-\$ 48=\$ 112$ |
| Sale price | $\$ 112.00$ |

Here's how you calculate the total with taxes:

| 1. Convert the percentage to a decimal. | $12 \%=.12$ |
| :--- | :--- |
| 2. Multiple the sale price by the decimal value to <br> figure out the amount of the taxes. | $\$ 112 \mathrm{X} .12=\$ 13.44$ |
| 3. Add the amount of the taxes to the sale price to <br> get the total | $\$ 112+\$ 13.44=\$ 125.44$ |
| Total with taxes | $\$ 125.44$ |

## 17.5: Discounts and Taxes

1. Practise converting percentages to decimals by completing the table below.

|  | Percentage | Decimal |  | Percentage | Decimal |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a) | $10 \%$ |  | f) | $4 \%$ |  |
| b) | $20 \%$ |  | g) | $8 \%$ |  |
| c) | $40 \%$ |  | h) | $25 \%$ |  |
| d) | $80 \%$ |  | i) | $42 \%$ |  |
| e) | $100 \%$ |  | j) | $92 \%$ |  |

2. Calculate the discounts and the sale prices.

|  | Item | Cost | Discount | Amount of <br> discount | Sale price |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a) | Desk | $\$ 218$ | $10 \%$ |  |  |
| b) | Chair | $\$ 159$ | $25 \%$ |  |  |
| c) | File cabinet | $\$ 369$ | $5 \%$ |  |  |
| d) | Bookshelf | $\$ 112$ | $40 \%$ |  |  |

3. Calculate taxes and the totals including taxes.

|  | Item | Cost | Tax Rate | Taxes | Total including <br> taxes |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a) | Box of paper | $\$ 64$ | $10 \%$ |  |  |
| b) | Printer ink | $\$ 55$ | $8 \%$ |  |  |
| c) | Set of notebooks | $\$ 29$ | $14 \%$ |  |  |
| d) | Binder clips | $\$ 6.20$ | $15 \%$ |  |  |

## 17.6: Restaurant Bill

Review the restaurant bill, then answer the questions below.

| Mother's Kitchen home cookin' away from home |  |  |
| :---: | :---: | :---: |
| Qty | Item | Cost |
|  |  |  |
|  |  |  |
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|  |  |  |
|  |  |  |
| SUBTOTAL |  |  |
|  |  |  |
| 10\% seniors' discount |  |  |
| SUBTOTAL |  |  |
| Tax |  |  |
| TOTAL |  |  |
| Thanks! <br> See you again soon. |  |  |

- How do restaurant servers use this document?
- How do customers use it?
- What forms look similar to this restaurant bill?


## Work with a partner. Take turns playing the role of the customer and the role of the server.

- Customer: Review the menu and place your order.
- Server: Fill in the bill on the previous page and make the necessary calculations.


## Soup

Soup of the day..................................... 3.50
*Homemade chicken noodle ............4.25
Vegetable soup ..................................... 3.75
Cream of mushroom ........................... 4.25
Clam chowder...........................................7.75

## Salad

Caesar salad ...................................(s) 4.50
.................................................................(l) 7.75
Garden salad
(s) 4.25
(l) 7.50

Potato salad .................................................. 75
*Chef's salad ............................................. 8.25
Mixed greens with cheese, ham and croutons

## Snacks

French fries .................................. (s) 2.75
(m) 3.50
(l) 5.25

Onion rings .......................................... 3.75

* Mother's specialties


## Sandwiches

All sandwiches come with coleslaw and pickle

Ham on rye ............................................ 6.75
Tuna salad.................................................... 65
Chicken salad............................................... 6.75
Salmon salad ............................................. 7.25
*Turkey club .............................................. 7.50

Desserts
Blueberry cheesecake......................... 5.25
*Apple Pie ..................................................7.75
Ice cream
strawberry, chocolate or vanilla
1 scoop
2 scoops .................................................. 3.50

Beverages
Soft drinks.............................................. 2.50
Water...................................................... 2.50
Coffee ................................................... 2.00
Tea .............................................................. $2 .$.

