

## Curriculum Outcome

**General Outcome:** Develop number sense and critical thinking skills.

**N1** Solve problems that involve unit pricing and currency exchange, using proportional reasoning.

**N2** Demonstrate an understanding of income, including: wages, salary, contracts, commission, piecework, and calculating gross pay and net pay.

**N3** Demonstrate an understanding of compound interest.

**N4** Demonstrate an understanding of financial institution services used to access and manage finances.

**N5** Demonstrate an understanding of credit options, including: credit cards, and loans.

**Student Friendly:**



## Last Nights homework

HW: Page 32  
Questions 1 -6

1.3 Build Your Skills Detailed Solutions.pdf

1) \$36.40 / shirt

2) \$356.33

3) \$227.59

4) \$1099.75 without tax  
\$1264.73 with tax

5) a) \$1 373.25

b) \$150

6) a) \$2.88

b) \$38.88

7) Answers vary

8) i) \$0.0175/g

a) Must factor in  
rent , employee  
salaries, equipment..

b)\$6.13

c) \$5.21

d) yes, profit of \$0.83



## Last Nights homework

HW: Page 32  
Questions 1 -6

1.3 Build Your Skills Detailed Solutions.pdf

1) \$36.40 / shirt

2) \$350.13

3) \$225.59

4) \$1099.75 without tax  
\$1242.72 with tax

5) a) \$1 373.25

b) \$150

6) a) \$2.88

b) \$38.88

$$\begin{aligned} & \text{hat} \\ 3) \quad & \$49.95 \times 1.10 \\ & \$54.95 \end{aligned}$$

$$\begin{aligned} & \text{boat} \\ & \$129.95 \times 1.10 \\ & \$142.95 \end{aligned}$$

$$\begin{aligned} & 54.95 + 142.95 \\ & = \$197.90 \end{aligned}$$

$$\begin{aligned} & \$197.90 \times 1.10 \\ & = 217.69 \times 1.05 \\ & = \$228.57 \end{aligned}$$

a)<sup>5</sup>

$$\begin{aligned} 50(3.50) &+ 175(3.99) + 250(2.00) \\ 175 &+ 698.25 + 500 \\ &= \$1373.25 \end{aligned}$$

b) farm

$$\begin{aligned} 100(3.50) \\ &= \$350 \end{aligned}$$

store

$$\begin{aligned} 100(2.00) \\ &= \$200 \end{aligned}$$

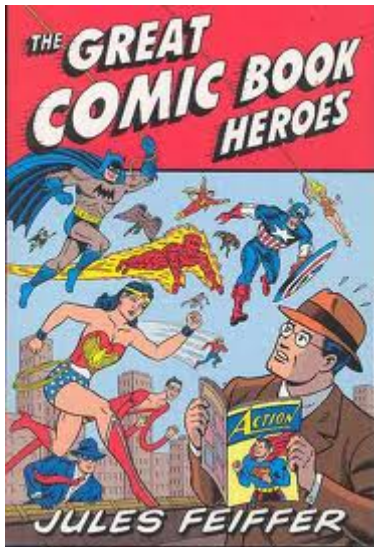
$$\begin{aligned} 350 - 200 \\ &= \$150 \end{aligned}$$

$$\begin{array}{l} 6 \\ a) \quad \$ 2.50 \quad \times \quad 1.15 \\ \quad \quad \quad = \quad \$ 2.88 \end{array}$$

$$\begin{array}{l} \text{old} \\ b) \quad 100 (2.50) \\ \quad \quad = 250 \end{array}$$

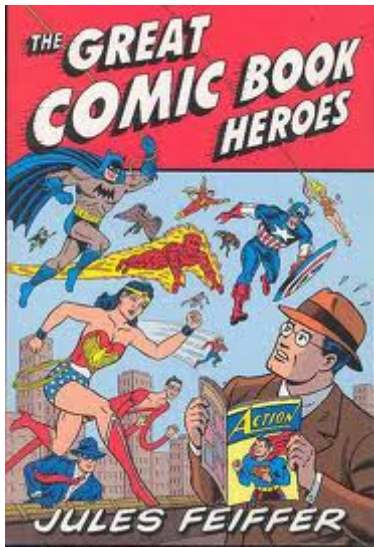
$$\begin{array}{l} \text{New} \\ 100 (2.88) \\ = 288 \end{array}$$

$$\begin{array}{l} 288 - 250 \\ = \$ 38.00 \end{array}$$



Cynthia purchases an order of 425 comic books for \$700.00. She plans to mark the price up by 90%. What will she charge her customers for one comic book?

$$\begin{array}{r} \$ 700 \\ \hline 425 \end{array} = \$ 1.65$$
$$\begin{array}{r} \times 1.9 \\ \hline \$ 3.14 \end{array}$$



Cynthia purchases an order of 425 comic books for \$700.00. She plans to mark the price up by 90%. What will she charge her customers for one comic book?

Unit Price:

$$\$700 \times 1.90 = \$1330$$

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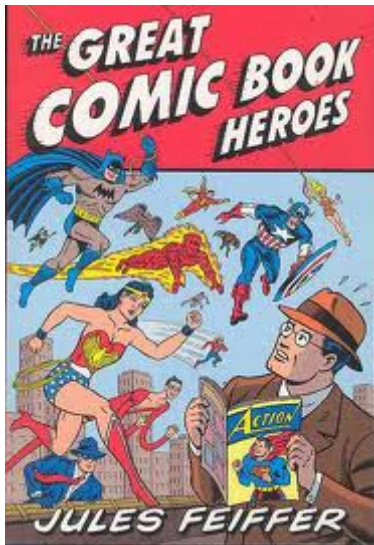
Selling Price for one:

$$\$1330 / 425$$

$$\$3.14$$

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Cynthia purchases an order of 425 comic books for \$700.00. She plans to mark the price up by 90%. What will she charge her customers for one comic book?

Unit Price:

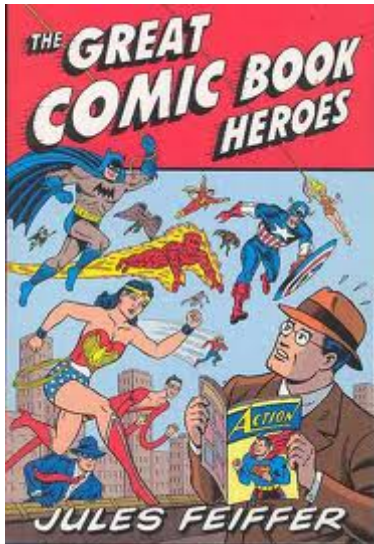
$$\frac{\$700}{425} = \$1.65/\text{comic}$$

---

Selling Price:

$$\begin{aligned} &\$1.65 \times 1.90 \\ &\$3.14 \end{aligned}$$

---



Cynthia purchases an order of 425 comic books for \$700.00. She plans to mark the price up by 90%. What will she charge her customers for one comic book?

Unit Price:

$$\frac{\$700}{425} = \$1.65/\text{comic}$$


---

Markup:

$$\begin{aligned} &\$1.65 \times 0.90 \\ &\$1.49 \end{aligned}$$


---

Selling Price:

$$\begin{aligned} &\$1.65 \\ &+1.49 \\ &\hline &\$3.14 \end{aligned}$$

The selling price is \$3.14.

$$1.65 \quad \times \quad 1.90$$

$$\$ 3.14$$

Copy these two notes...

**promotion:** an activity that increases awareness of a product or attracts customers

**Common Discounts...**

- 70 % off
- save \$30
- BOGO
- 1/2 price



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**Zellers 5 DAYS OF WEEKEND Savings**  
**FRIDAY TO SUNDAY!** SEPTEMBER 9th-11th, 2011



**HomeStyles**  
**FIELDCREST**

**ALL HOMESTYLES™ & FIELDCREST® BED-IN-A-BAG SETS SAVE 50%**

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 See inside.



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**ALFRED SUNG HOME**

**BUY 1, GET 1 FREE\***

**ALL ALFRED SUNG HOME™, FIELDCREST® AND HOMESTYLES™ FASHION BATHROOM ACCESSORIES** Reg. 6.97-46.98

**EXAMPLE:**

Jonas needs to buy a new winter jacket. He has waited for a sale, and a jacket that originally cost \$249.95 is now discounted 20%. How much will the jacket cost if Jonas lives in Nova Scotia, where HST is 15%?

**This Way:**

Focus... How much is taken off?

## 1) Find the discount

$$\begin{array}{r} \hline \$249.95 \times 0.20 \\ \$49.99 \end{array}$$

## 2) Find the sale price

$$\begin{array}{r} \hline \$249.95 - \$49.99 \\ \$199.96 \end{array}$$

## 3) Add the tax

$$\begin{array}{r} \hline \$199.96 \times 1.15 \\ \$229.95 \end{array}$$

**That way:**

Focus...

How much do you still have to pay?

## 1) Find the sale price

$$\begin{array}{r} \$249.95 \times 0.80 \\ \$199.96 \end{array}$$

1 - % (decimal)

## 2) Add the tax

$$\begin{array}{r} \hline \$199.96 \times 1.15 \\ \$229.95 \end{array}$$



Jonas needs to buy a new winter jacket. He has waited for a sale, and a jacket that originally cost \$249.95 is now discounted 20%. How much will the jacket cost if Jonas lives in Nova Scotia, where HST is 15%?

Copy these formulas...

What percent did you pay? $\frac{\text{Sales Price}}{\text{Reg Amount}} \times 100 \%$
---

\$76.49 Sale Price



\$89.99  
Regular Price

$$\frac{\$76.49}{\$89.99} = 0.85$$

85%

Rate  
of  
discount



\$89.99 Regular Price  
\$76.49 Sale Price

What percent did you save? $\frac{\text{Amount saved}}{\text{Total Amount}} \times 100 \%$
---

$$\begin{array}{r} \$89.99 \\ -\$76.49 \\ \hline \$13.50 \end{array}$$

$$\frac{\$13.50}{\$89.99} = 0.15$$

15%

What percent did you pay?

$$\frac{\text{Amount Paid}}{\text{Total Amount}} \times 100 \%$$

---

What percent did you save?

$$\frac{\text{Amount saved}}{\text{Total Amount}} \times 100 \%$$



Determine the rate of discount in each of the following...

HP PAVILION LAPTOP  
 AMD Turion™ 64 X2 Mobile Technology TL-64  
 • 2 GB memory, 320 GB hard drive (160 x 2)  
 • DVD Super Multi drive with HD DVD support  
 • Wireless A/DVGA, Firewire, HDMI  
 • 256 MB NVIDIA GeForce 6400M GS graphics  
 D00187...DV130CA

**SAVE \$380**  
**899.96**

256 MB DEDICATED VIDEO MEMORY!  
 17" Widescreen LCD  
 Bluetooth

Rate = 30 %

SOLUTION...  
 Delete to reveal



Sale: \$48.88  
 Reg: \$179.99  
 Save 70%

Rate = 73 %

SOLUTION...  
 Delete to reveal

Simoniz® S1900  
 Electric Pressure Washer

Sale: \$229.99  
 Reg: \$349.99

SOLUTION...  
 Delete to reveal

and everything  
**Tostitos** **Doritos**  
 WAS 3.79  
**2.99**  
 Doritos tortilla chips  
 Tostitos or Ruffles potato chips  
 selected varieties, 400-440 g

Rate = 21 %

SOLUTION...  
 Delete to reveal

SOLUTION...  
 Delete to reveal



Which of the following is the best deal for a new 1TB hard drive that regularly costs \$109.99 , and HST is 10%. What will you pay in each scenario?



**Prove it**

<b>Sale Option</b>	<b>Discount</b>
i	20% off
ii	85% of the regular price
iii	Dont pay the tax!
iv	1/4 off the regular price

Sale Option	Discount
i	20% off
ii	85% of the regular price
iii	Dont pay the tax!
iv	1/4 off the regular price



**DISCOUNT** ⇒ Sale "i" (20%)  
 $109.99 \times 0.80 = \mathbf{\$87.99}$   
**OR**  
 $109.99 \times 0.20 = \$22.00$   
 $109.99 - 22.00 = \mathbf{\$88.00}$   
**TAX** ⇒  $87.99 \times 1.10 = \mathbf{96.80}$

**DISCOUNT** ⇒ Sale "ii" ( 15% )  
 $109.99 \times 0.85 = \mathbf{\$93.49}$   
**TAX** ⇒ ~~93.49~~  $93.49 \times 1.10 = \mathbf{\$102.84}$

Sale "iii" (No Tax )  
 ⇒  $\mathbf{\$109.99}$

**DISCOUNT** ⇒ Sale "iv"  
 $109.99 \times 0.75 = \mathbf{\$82.49}$   
**TAX** ⇒  $86.61 \times 1.10 = \mathbf{\$90.74}$

# You Try!!

1. The cost of a new sledge hammer is \$42.99. It is on sale for \$32.24.  
What percent would you now have to pay?



2. Towel are on sale at a department store. The advertisement says,  
"Buy one, get one 50% off !" The regular price of a towel is \$21.99.

- a) If you buy 4 towels, how much will it cost? (Don't include tax)  
b) What is the percent you actually saved?

$$\begin{array}{r}
 21.99 \\
 + 11 \\
 \hline
 21.99 \\
 11 \\
 \hline
 \end{array}$$



1. The cost of a new sledge hammer is \$42.99. It is on sale for \$32.24. What percent would you know have to pay?

$$\frac{\text{Amount Paid}}{\text{Total Amount(org.)}}$$

$$= \frac{32.24}{42.99}$$

$$= 0.75$$

$$= 75\%$$



2. Towel are on sale at a department store. The advertisement says, "Buy one, get one 50% off !" The regular price of a towel is \$21.99.



- a) If you buy 4 towels, how much will it cost? (Don't include tax)  
 b) What is the percent you actually saved?

Regular Price Paid

$$\Rightarrow 21.99 \times 4 = \mathbf{\$87.96}$$

Sale on 2nd Towel

$$\Rightarrow 21.99 \times 0.50 = \mathbf{\$11.00}$$

Total Price Paid

$$\begin{array}{r} + \quad 11.00 \\ \quad 21.99 \\ \quad 11.00 \\ \hline = \mathbf{\$65.98} \end{array}$$

Percent Saved

$$\frac{\text{Amount saved}}{\text{Total Amount(org.)}}$$

$$\Rightarrow 87.96 - 65.98 = \mathbf{\$21.98}$$

$$\frac{\mathbf{21.98}}{\mathbf{87.96}} = \mathbf{\%25}$$



## HOMEWORK

Page 37 Questions 1 to 7.

[1.4 Build Your Skills Detailed Solutions.pdf](#)



**BUILD YOUR SKILLS**

*Setting up your calculator  
you to research the best price  
furnishings.*

1. A supermarket regularly charges \$5.89 for a package of pizza snacks. During a sale, the supermarket offers this promotion: "Buy one at the regular price, get a second one for half price."
  - a) If Marylyn buys two packages, what will she pay?
  - b) Approximately what percent does Marylyn save during this sale? Explain your reasoning.
  
2. Rémy works at a sports store in Moncton, NB, where the price of a best-selling tennis racquet is \$49.95. His friend Alain works at a competitor's store where the regular price of a similar tennis racquet is \$55.95, but it is on sale at 15% off. Alain says his store offers the best price.
  - a) Calculate the total price of the tennis racquet at each store, including HST.
  - b) Is Alain right? Explain why or why not.
  
3. A hairstylist at Top Cuts is preparing a discount offer. The regular cost of highlighting is \$55.00. To attract more customers early in the day, he offers 15% off for appointments before 10:00 am. Mid-afternoon is also a slow time on Wednesdays and Thursdays, so he offers \$5.00 off coupons for appointments made during those times.
  - a) Which appointment time will get you the lowest price?
  - b) Which promotion do you think will appeal to more people, coupons or percent off? Explain your thinking.
  
4. A roofer in Deer Lake, NL, buys metal roofing at a builder's discount of 20% off the retail price of \$27.50 per square metre. If the roof of your house is 74 square metres and the roofer passes on 50% of the discount he receives to you, how much will you pay for the materials? If his usual hourly rate for labour is \$36.00 and he gives you a 5% discount, how much will you save in labour costs if the job takes 16 hours? Omit the taxes in your calculations.
  
5. Pole mount industrial fans are on sale at two wholesalers in Sydney, NS. An electrician needs 20 fans for installation in an office building. The sale price at the first store is 5% off the regular price of \$157.00. The price at the second store is \$165.00 each, but \$149.00 for 10 or more. HST applies.
  - a) Calculate the total cost of 20 fans at each store.
  - b) Which wholesaler offers a better buy?



*g to cut and*



6. Drumdancer Arts and Crafts Shop is located in Happy Valley-Goose Bay, NL. The shop was opened to promote and develop Aboriginal arts, culture, and crafts. The shop has the following items on sale:
- A print of an Inuit *tupiq*, or skin tent, that was \$31.99 is marked down to \$19.99.
  - A CD featuring throat singers Tama Fost and Jennie Williams that was \$24.95 is marked down to \$21.99.
  - A small replica of a bow drill that was \$49.99 is marked down to \$24.99.
- a) Calculate what percentage of markdown each item has been given.
- b) If a customer bought all 3 items, how much would he or she save in total? On which item would the customer save the most?
7. An exterior house painter in Halifax, NS, is offering a sales promotion. If you sign a contract to have your house painted and get a neighbour or friend to sign a contract at the same time, you each get a discount of 5% on the labour rate of \$26.00/hr. HST applies.
- a) If your house takes 55 hours to paint, how much would you pay at the regular price and how much would you pay with the discount? How much did you save?
- b) If the second person's house takes 60 hours to paint, how much more would that person save than you would save?

## Attachments

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1.4 Build Your Skills Detailed Solutions.pdf

1.3 Build Your Skills Detailed Solutions.pdf