

**WARM-UP...**

Ms. Ronan 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?

```
700/425
1.647058824
Ans*1.9
3.129411765
```

**SOLUTION..**

Delete to reveal



### Questions from the Homework???

#### 1.3 Build Your Skills Detailed Solutions.pdf



click HERE to see detailed answers (if needed)

6

When Julie completed the baker apprenticeship program and started her own cake business, her first order was to provide cakes for 100 people at a business luncheon. After calculating the cost of all her supplies and ingredients, her time, and the cost of gas for delivering the cakes, she found that her price of \$2.50 per portion did not cover her costs.

a) If she increased her price by 15%, what would the new unit price be?

b) How much more would she make on 100 servings at the higher price?

c) If she thought customers would reject a 15% price increase, how might she lower her costs?

$$2.50 \times 1.15 = \$2.88$$

$$2.88 - 2.50 \Rightarrow \$0.38$$

$$\begin{array}{r} \$0.38 \\ \times 100 \\ \hline \$38 \end{array}$$

- sale items  
- pickup

3

2. An outfitter in St. John's, NL, sells full-brim aluminum hard hats for \$49.95 and steel-toed work boots for \$129.95. If you purchase a hard hat and two pairs of boots, what will your total cost be, including tax? How much HST will you pay on these three items?
3. If the outfitter in question 2 opens a store in the Evangeline Region, PEI, where exploration for oil is taking place, it may sell hard hats and work boots for 10% more than it charges in St. John's. What would you pay for a hard hat and a pair of steel-toed boots in PEI, taking into account that GST of 5% and PST of 10% apply?

	179.9
Ans*1.1	197.89
Ans*1.05	207.7845
Ans*1.1	228.56295
■	

**MATH ON THE JOB**

Danielle is the owner of a company in Saint John, New Brunswick, that installs ceramic tile, marble, slate, terrazzo, and granite for exterior and interior walls, floors, and other surfaces. Early spring is a slow time for this type of business, so Danielle's company is offering discounts on materials left in stock from last year. To get the most from this **promotion**, Danielle needs to calculate what percentage discount to offer on each type of material, taking into account what her costs were and how much stock remains. She may also offer a variety of discounts based on quantities bought.

The company has in stock 12" × 12" slate in sandstone colour that sold for \$6.99 per square foot last year. If Danielle offers it at a 15% discount, what will the sale price be for 50 square feet of slate, before taxes?



*During periods when business is slow, a business owner can increase sales by getting in touch with past or potential clients.*

**SOLUTION**

Imperial measurements are standard in the construction trades. Discuss with students the number of tiles needed. Each tile is 12" × 12" or 1' × 1'. Calculate using feet since the price is given per square foot. Since 50 square feet of slate are needed, calculate the cost of 50 tiles.

**Note:** Some students may not understand the concept of "square feet." Draw a square on the board and label each side as 4. Then draw in vertical and horizontal lines within the square to total 16 boxes within the space. Each side measures 4 linear feet. The area within the square becomes the square footage since the area of the square (4 × 4) is 16. In this example, 50 square feet could be represented by a 10' × 5' rectangle or a 25' × 2' rectangle, or some other shape. Point out that the shape does not have to be a square; remind students that it is area that is being discussed.

**COST METHOD 1:** 2-step process

First find the percent discount on one tile and subtract that amount from the original price. Remember to convert the percent to a decimal.

$$\begin{aligned} \$6.99 \times 0.15 &= \$1.0485 \\ \$6.99 - \$1.05 &= \$5.94 \text{ per tile} \\ \$5.94 \times 50 &= \$297.00 \end{aligned}$$

**COST METHOD 2:** 1-step process

If the discount per tile is 15%, then you can calculate the discount percentage.

$$\begin{aligned} 100\% - 15\% &= 85\% \\ \$6.99 \times 0.85 &= \$5.94 \text{ a tile} \end{aligned}$$

Multiply to find the total cost.

$$\$5.94 \times 50 = \$297.00$$

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



**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

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

2) Find the sale price

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

3) Add the tax

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

**That way:**

Focus...

How much do you still have to pay?

1) Find the sale price

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

*Discount*  
 1 - % (decimal)



2) Add the tax

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

Copy these formulas...

What percent did you pay?

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

\$76.49 Sale Price



\$89.99

Regular Price

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

85%

What percent did you save?

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



\$89.99 Regular Price

\$76.49 Sale Price

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

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

15%

Rate of Discount

(ROD)

- is equal to...

$$\frac{\text{Amount of Discount}}{\text{Regular Price}} \times 100 \%$$

Discount = Reg - Sale

ex: Reg. ⇒ \$299.00     \$20  
 Sale Price ⇒ \$279.00  
 What is the rate of discount?

Discount = Reg - Sale  
 = 299.00 - 279.00  
 = \$20

R.O.D =  $\frac{20}{299} \times 100\%$   
 = 7%

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

HP PAVILION LAPTOP  
 AMD Turion™ M64 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/B/G/N, FireWire, HDMI  
 • 256-MB NVIDIA GeForce 6400M GS graphics (DUAL, NVIDIA)  
 Integrate Webcam  
 17" Widescreen LED  
 AMD  
 Bluetooth  
**SAVE \$380**  
**899<sup>96</sup>**

Rate = 30 %

```
380+899.96      1279.96
380/1279.96*100
29.68842776
```

Simoniz® S1900  
 Electric Pressure  
 Washer  
 Sale: \$229.99  
 Reg: \$349.99  
 1/3 Off

Rate = 33 %

SOLUTION  
 Delete to reveal



166-piece socket set  
 #58-9225-6

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

Rate = 70 %

SOLUTION...  
 Delete to reveal

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

Rate = 21 %

```
3.79-2.99      .8
.80/3.79*100
21.10817942
```





## HOMEWORK

Page 37 Questions 1 to 7.

[Worksheet - On Sale.pdf](#)



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



## Attachments

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1.3 Build Your Skills Detailed Solutions.pdf

Worksheet - Setting the Price.pdf

1.4 Build Your Skills Detailed Solutions.pdf

Worksheet - On Sale.pdf