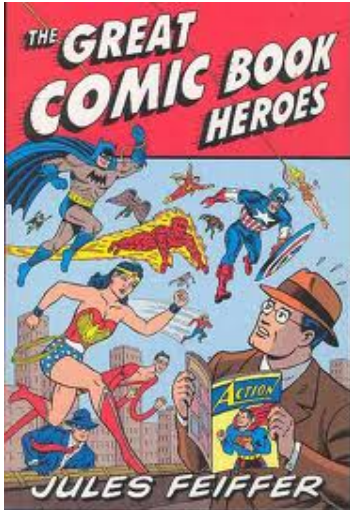
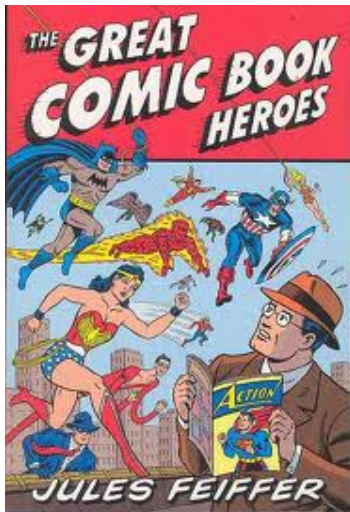


WARM-UP...

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?

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

$$\$1.65 \times 1.90 = \$3.14/\text{comic}$$



Unit Price:

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

Markup:

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

Selling Price:

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

The selling price is \$3.14.

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?

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" x 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" x 12" or 1' x 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 x 4) is 16. In this example, 50 square feet could be represented by a 10' x 5' rectangle or a 25' x 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.

$$\begin{aligned} 100\% - 15\% &= 85\% \\ \$6.99 \times 0.85 &= \$5.94 \text{ a tile} \\ \text{Multiply to find the total cost.} \\ \$5.94 \times 50 &= \$297.00 \end{aligned}$$

$$6.99 \times 50 = \$349.50$$

Method 1

$$349.50 \times 0.15 = \$52.425$$

$$349.50 - 52.425 = \$297.08$$

Method 2

$$349.50 \times 0.85 = \$297.08$$

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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A promotional flyer for Zellers. At the top, it says "Zellers 3 DAYS OF WEEKEND Savings FRIDAY TO SUNDAY! SEPTEMBER 9th-11th, 2011". The main image shows a bed with a HomeStyles and Fieldcrest bed-in-a-bag set. Text on the bed set says "ALL HOMESTYLES™ & FIELDCREST® BED-IN-A-BAG SETS SAVE 50%". To the right, there's a section for "HomeStyles WATERPROOF MATTRESS PADS" with a "SAVE 60%" offer. Below that, it says "BUY 1, GET 1 FREE" for Alfred Sung Home, Fieldcrest, and HomeStyles fashion bathroom accessories. At the bottom, there's fine print: "ALL HOMESTYLES™ REGULAR AND OVERSIZED BED-IN-A-BAG SETS OR FIELDCREST® OVERSIZED BED-IN-A-BAG SETS Regular Sizes Double, Queen or King. Oversized Sizes Queen or King Reg. 139.97-199.97 ...83.98-119.98" and "ALL ALFRED SUNG HOME®, FIELDCREST™ AND HOMESTYLES™ FASHION BATHROOM ACCESSORIES Reg. 6.97-46.99".

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?

This Way:

Focus...
How much is taken off?

$$\begin{aligned} & \$249.95 \times 0.20 \\ & \quad \$49.99 \end{aligned}$$

$$\begin{aligned} & \$249.95 - \$49.99 \\ & \quad \$199.96 \end{aligned}$$



That way:

Focus...
How much do you still have to pay?

$$\begin{aligned} & \$249.95 \times 0.80 \\ & \quad \$199.96 \end{aligned}$$

What percent did you pay?

Amount Paid
Total Amount

$$\frac{\$76.49}{\$89.99} = 0.85 \quad 85\%$$

\$76.49 Sale Price



\$89.99 Regular Price

What percent did you save?



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

Amount saved
Total Amount

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

15%

\$89.99 Regular Price

\$76.49 Sale Price

Rate of Discount

is equal to...

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

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

$$\begin{aligned} \text{Rate of Discount} &= \frac{\text{Discount}}{\text{Reg Price}} \times 100\% \\ &= \frac{20}{299} \times 100\% \\ &= 6.7\% \end{aligned}$$

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/B/G/N, Firewire, HDMI
 • 256 MB NVIDIA GeForce 6400M GS graphics
 D2187, 2V1R33CA

256 MB DEDICATED VIDEO MEMORY!

SAVE \$380

899⁹⁶

Bluetooth



Simoniz® S1900
 Electric Pressure
 Washer

Sale: \$229.99
 Reg: \$349.99
 1/3 Off



166-piece socket set
 #58-9225-6

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



and endless

Tostitos Doritos

WAS 3.79

2.99

Doritos tortilla chips
 Tostitos or Ruffles potato chips
 selected varieties, 400-440g

ACTIVITY: SPENDING MONEY

NAME: _____

Question

Cheryl buys a pair of running sneakers in PEI that are regularly priced at \$135. This is the province that charges GST, which is added to the price of the sneakers. The PST is then calculated on the new price, which includes the GST. These sneakers are marked as "clearance"...40% off!!

- (a) Determine the sale price of these sneakers before taxes are added.
- (b) How much GST will be charged? 14%
- (c) What will be the PST charged on this item?
- (d) What will the final selling price be for these sneakers?
- (e) What would the rate of discount have been if the sneakers had been marked down to \$85 dollars, instead of being on sale for 40% off?

$$\$135 \times 0.60 = \$81.00$$

$$\$81.00 \times 1.14 = \$92.34$$

$$\begin{aligned} \text{Rate of discount} &= \frac{\text{discount}}{\text{Reg price}} \times 100\% \\ &= \frac{135 - 85}{135} \times 100\% \\ &= 37\% \end{aligned}$$



HOMEWORK

Page 37 Questions 1 to 7.

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