

Lesson 3.3 Markup and Markdown

Day 1

Teach objective

Assignment - Guided practice and Independent practice completed as a class

Day 2

Review

Cooperative (elbow buddy) assignment 3-3 practice and problem solving: D

3-3 Practice and problem solving: A/B

Login to Go Math

Go to the Resources Tab

Click on the Student Online Edition (yellow open book)

This will take you to another window to an interactive student edition textbook.

Go to page 97

Answers to “reflect”, Explore activity” and “your turn” questions

EA.

1. The expression would change to $1s + .34s$ or $1.34s$
2. A. $1c + .1c$ or $1.1c$
b. \$30.80
3. a. 200%
b. $1c + 2c$ or $3c$
4. A markup includes a coefficient greater than 1 and a markdown includes a coefficient less than 1.
5. A. See Coach Gammon for this drawing.
b. $.76b$
6. A. $1p - .05p$ or $.95p$
B. \$14.25

For answers to the guided practice and independent practice, see Coach Gammon.

Additional web sites

<https://www.youtube.com/watch?v=CIyCVim2Iqc>

https://www.youtube.com/watch?v=zpiDKjCrE_U

Remember, on the online edition, you can click on the “math on the spot” for a little extra teaching from Prof Burger. If you only have your book, use a QR scanner on the “math on the spot”

Lesson 3.3

Calculating Markups and Markdowns

How can you rewrite expressions to help you solve markup and markdown problems?

- Markups are the cost _____ a percentage of the cost
- Markdowns are the cost _____ a percentage of the cost

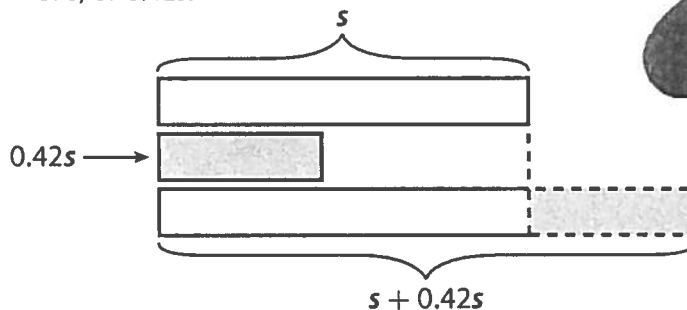
To make a profit, stores mark up the prices on the items they sell. A sports store buys skateboards from a supplier for s dollars. What is the retail price for skateboards that the manager buys for \$35 and \$56 after a 42% markup?

STEP 1 Use a bar model.

Skateboard = s

Draw a bar for the cost of the skateboard s

Then draw a bar that shows the markup: 42% of s , or $0.42s$.



These bars together represent the cost plus the markup, $s + 0.42s$.

STEP 2 Retail price = Original cost + Markup

$$\begin{aligned} &= s + 0.42s \\ &= 1s + 0.42s \\ &= 1.42s \end{aligned}$$

STEP 3 Use the expression to find the retail price of each skateboard.

$$s = \$35 \rightarrow \text{Retail price} = 1.42(\$35) = \$49.70$$

$$s = \$56 \rightarrow \text{Retail price} = 1.42(\$56) = \$79.52$$

Lesson 3.3

Calculating Markups and Markdowns

How can you rewrite expressions to help you solve markup and markdown problems?

- Markups are the cost plus a percentage of the cost
- Markdowns are the cost minus a percentage of the cost

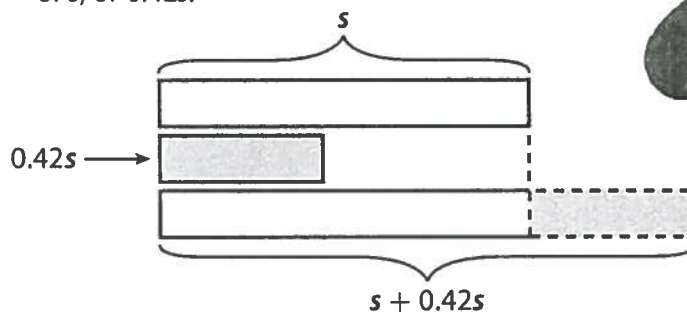
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LESSON
3-3

Markup and Markdown

Practice and Problem Solving: D

Answer each question. The first one is done for you.

1. Abdul buys dress pants from a clothing company for p dollars. He then sells each pair of pants in his men's clothing shop at a 40% markup.

a. Write the markup as a decimal. 0.40p

b. Write an expression for the retail price of a pair of dress pants.

c. What is the retail price of the pants that Abdul purchased for \$56.00?

d. How much did Abdul add to the original price of the pants?

Complete the table. The first row is done for you.

Item	Price	% Markup	\$ Markup	Retail Price
2. Tie	\$30	20%	\$6.00	\$36.00
3. Cufflinks	\$10	35%		
4. Belt	\$40	25%		

Find the sale price of each item. Round to two decimal places when necessary. The first one is done for you.

5. Original price: \$65; Markdown: 10%

58.50

6. Original price: \$30.50; Markdown: 30%

7. Original price: \$105; Markdown: 75%

8. Original price: \$325; Markdown: 15%

9. A jewelry supply shop buys silver chains from a manufacturer for c dollars each, and then sells the chains at a 40% markup. Write an expression for the retail price of a silver chain.

LESSON
3-3

Markup and Markdown

Practice and Problem Solving: A/B

Discounts R Us buys items at wholesale, then marks them up to set a retail sale price. Some of the items the store sells are shown in the table below.

Complete the table.

Item	Wholesale Price	% Markup	\$ Markup	Retail Sale Price
1. Notebook	\$1.50	20%		
2. Scissors	\$3.25	40%		
3. Calculator	\$9.60	25%		
4. Sunglasses	\$12.50	78%		
5. Bicycle	\$78.00	55%		
6. Picture frame	\$2.99	150%		

Find the retail sale price of each item below. Round to two decimal places when necessary.

7. Original price: \$65.00; Markdown: 12%

8. Original price: \$29.99; Markdown: $33\frac{1}{3}\%$

9. Original price: \$119.00; Markdown: 70%

10. Original price: \$325.50; Markdown: 15%

Use the information to complete 11–14.

A jewelry supply shop buys silver chains from a manufacturer for c dollars each, and then sells the chains at a 57% markup.

11. Write the markup as a decimal. _____

12. Write an expression for the retail price of a silver chain.

13. What is the retail price of a silver chain purchased for \$45.00?

14. How much was added to the original price of the chain? _____