Sales and Markups

Write the multiplier for every change before you compute. Money to the cent.

Name _____ Date _____

Words we use

say the math word, then the plain English

WORD	PLAIN ENGLISH	WHAT YOU DO
Discount	The amount taken off.	Original price times the discount rate.
Markdown	Another word for a discount.	Same move: take the percent off.
Sale price	What you pay after the discount.	Multiply by 1 minus the rate: 0.70 for 30 percent off.
Markup	The amount a store adds to what it paid.	Multiply by 1 plus the rate: 1.45 for 45 percent.
Original price	The price before any change.	When it is missing, ask what percent of it the sale price is.
Percent of what	The whole the percent is taken from.	Ask it before every multiplication.

Part A Discounts

1. Shoes, $60, 30 percent off. The discount, then the sale price two ways.

2. Sneakers, $80, 25 percent off. Sale price in one step.

3. A $50 game is on sale for $35. What percent off?

Part B Multipliers

CHANGE	MULTIPLIER	BIGGER OR SMALLER?
30% off		
45% markup		
7% tax		
15% off		
100% markup		

Part C Markups and working backward

1. A hoodie costs the store $20 and is marked up 45 percent. Markup and selling price?

2. A store pays $40 for a lamp and sells it for $52. The markup rate?

3. A shirt is 40 percent off and costs $12 on sale. The original price? Why is $12 plus 40 percent of $12 wrong?

4. Headphones are 25 percent off and cost $45. The original price?

Part D Exit ticket

1. Sneakers, $80, 25 percent off. Sale price?

2. The multiplier for 30 percent off? For a 45 percent markup?

3. A shirt is 40 percent off and costs $12. Forty percent of what?

Answer key

Part A. 1. $18; $42 both ways. 2. $60. 3. 30% off.

Part B. 0.70 smaller; 1.45 bigger; 1.07 bigger; 0.85 smaller; 2 bigger.

Part C. 1. $9; $29. 2. 30%. 3. $20; the 40 percent was taken from $20, not from $12, so adding $4.80 gives $16.80. 4. $60.

Part D. 1. $60. 2. 0.70 and 1.45. 3. Of the original price, $20.