

Sale Day Percents

Mission: Everything at the mall is on sale, and shoppers want to know what they'll really pay. Use a percent bar (a tape diagram) to find the discount and the sale price, without a calculator.

Big question: How can a percent bar help us find a percent of a quantity?

★ Warm-up: Number talk

Find mentally. Explain one strategy.

10% of \$60 ✓ **\$6.**

5% of \$60 ✓ **\$3 (half of 10%).**

Key vocabulary

Percent	Per hundred: 25% means 25 out of 100.
Discount	The amount taken off a price.
Sale price	The price after the discount.
Tape diagram	A bar split into parts to show a ratio or percent.

1 Box 1

The discount

In the simulator: Move the marker to the discount percent (25%).

How much do you SAVE on the sneakers?

Answer: _____ \$ ✓ **15**

Show your thinking:

What you pay

In the simulator: Move the marker to the percent you PAY (100% – 25%).

What is the sale price?

Answer: _____ \$ ✓ **45**

2 Box 2

Sale table

Use the percent bar for each item.

Item	You save (\$)	You pay (\$)
Jacket \$80, 30% off	24	56
Backpack \$45, 20% off	9	36
Headphones \$120, 15% off	18	102

3 Box 3

Better deal?

Which saves more money: 30% off \$80, or 15% off \$120?

☐ 30% off \$80 (\$24 vs \$18) ☐ 15% off \$120 ☐ They save the same

✓ **30% off \$80 (\$24 vs \$18)**

4 Box 4

Error detective

What did Jordan do wrong?

☐ Subtracted 20 dollars instead of 20 percent. 20% of \$45 is \$9, so the price is \$36 ☐ Nothing

☐ Should have added

✓ **Subtracted 20 dollars instead of 20 percent. 20% of \$45 is \$9, so the price is \$36**

5 Box 5

Legend: backwards Legend only

A hoodie on sale for 40% off costs \$27. What was the original price?

Answer: _____ \$ ✓ **45**

Show your thinking:

6 Box 6

Shopper tip

Explain how to find 25% off a \$60 item without a calculator.

Look for: Uses a friendly percent; Finds what you pay; a number from the simulator

Exit ticket: answer the big question in your own words

How can a percent bar help us find a percent of a quantity?

Look for: A percent is a rate per 100. On a percent bar, 100% matches the whole price. Find 10% by dividing by 10, then build other percents from it (25% = 10% + 10% + 5%). The sale price = 100% – discount %.

Completion codes

Students see a code like **ABC-I3** when they finish. The first part must match below. The letter is the level (E = Explorer, I = Investigator, L = Legend), and the number at the end is how many stars they earned.

Level	Code starts with
 Explorer	1KC-E
 Investigator	1MD-I
 Legend	1I1-L

 Watch for these misconceptions

- "Ratio order doesn't matter." $3:2$ and $2:3$ are different comparisons.
- "Add the same number to both parts to make equivalent ratios." You must multiply or divide.
- "Percents can never be more than 100." 150% of something is more than the whole.