LESSON MAKER PRO

Percent Power Moves

Use ratios to find parts, totals, and percent changes.

GRADE 6 · MA.6.AR.3.4

MA.6.AR.3.4 "Apply ratio relationships to solve mathematical and real-world problems involving percentages using the relationship between two quantities."

NAME _____ DATE _____

PERCENT AS A RATIO

A percent compares a part to 100. To find a percent of a quantity, write the percent as a fraction over 100 and multiply. To find what percent one quantity is of another, write part/whole and make an equivalent fraction with a denominator of 100.

WORKED EXAMPLE

Find 15% of 80.

1. 15% = 15/100.
2. 15/100 of 80 = (15/100) x 80.
3. (15 x 80)/100 = 12.

Answer: 12

PRACTICE 6 problems

1 Find 25% of 64.

ANSWER _____

2 18 is what percent of 60?

ANSWER _____

3 Find 45% of 40.

ANSWER _____

4 14 is 35% of what number?

ANSWER _____

5 Write 3/4 as a percent.

ANSWER _____

6 A $50 game is on sale for 20% off. What is the sale price?

ANSWER _____

APPLY IT Show your work

1 At an esports club meeting, 24 of 32 members choose to play a strategy game. What percent of the members choose the strategy game?

WORK SPACE

ANSWER _____

2 A pair of headphones costs $36 after a 25% discount. What was the original price?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A $70 skateboard deck is marked up 20%, then marked down 20% from the marked-up price. What is the final price? Explain why it is not $70.

WORK SPACE AND ANSWER

ANSWER KEY

Percent Power Moves

GRADE 6 · MA.6.AR.3.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 25% of 64.	**16**
2	18 is what percent of 60?	**30%**
3	Find 45% of 40.	**18**
4	14 is 35% of what number?	**40**
5	Write 3/4 as a percent.	**75%**
6	A $50 game is on sale for 20% off. What is the sale price?	**$40**

PART 2 · APPLY IT

1. **75%** Write the ratio as 24/32 and simplify it to 3/4. Since 3/4 = 75/100, 75% of the members choose the strategy game.
2. **$48** After a 25% discount, the sale price is 75% of the original price. Since 36 is 75% of 48, the original price was $48.

CHALLENGE

The final price is $67.20. The increase makes the price $84, and 20% of $84 is $16.80, so the decrease gives $67.20, not $70.

Accept equivalent fraction, decimal, or percent forms when they represent the same value. For the challenge, students should show that the 20% increase and 20% decrease are based on different amounts.