Lesson 4-4 · Session 1

Find the Percent of a Number

Name _____ Date _____ Period _____

Maryland Standard 6.AT.4 · Learning target — I can find the percent of a number exactly.

Show a model, calculation, or explanation. Answer every part and label units when needed.

Exercises 1–12 earn 1 point for a correct response and 1 for supporting work. Spiral Review and Test Practice earn 1 point each.

Learn from a model

REMEMBER

- To find the percent of a number exactly, change the percent to a decimal and multiply.
- Example: 30% of 50 = 0.30 × 50 = 15.
- Watch out — check the decimal point before you multiply; 6% is 0.06, not 0.6.
- Check it — a percent below 100% must give an answer smaller than the original number.

WORKED EXAMPLE

Finding the Percent of a Number A store display holds 250 hats, and 36% of them are blue. How many of the hats are blue?

Step 1 Name the pieces: the base is 250 hats, the percent is 36%, the part is unknown.

Step 2 Write the percent in hundredths: 36% becomes 0.36

Step 3 Write the equation: part = 0.36 × 250

Step 4 Multiply, then check that the part is smaller than the base.

Answer 90 of the hats in the display are blue.

Practice

1. Find 40% of 90. _____

Answer _____

SHOW YOUR THINKING

2. Find 15% of 60. _____

Answer _____

SHOW YOUR THINKING

3. A backpack normally costs $45. It is on sale for 20% off. How much money is taken off the price?

Answer _____

SHOW YOUR THINKING

4. Change each percent to hundredths, then multiply to find the part.

a. 25% of 48 = _____
b. 10% of 230 = _____
c. 60% of 35 = _____
d. 5% of 140 = _____
e. 80% of 55 = _____
f. 12% of 300 = _____

Answer _____

SHOW YOUR THINKING

5. Choir Trip. A choir of 120 singers is going on a trip, and 35% of them play an instrument too. How many of the singers play an instrument?

Answer _____

SHOW YOUR THINKING

6. Phone Plan. A phone plan costs $55 a month. A student discount takes 18% off that cost. How much money is taken off?

Answer _____

SHOW YOUR THINKING

7. Dog Park Survey. Of the 450 people surveyed at a dog park, 24% walk there and 16% ride a bike there. Each person reports just one travel method. Find the number who walk, then find how many people use neither way.

Answer _____

SHOW YOUR THINKING

8. Leilani found 20% of 60 by dividing 60 by 20 and writing 3. Explain why that is wrong, then show the correct work.
Sentence Frame: "I know this because..."

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

9. Find 30% of 260.

Answer _____ answer

SHOW YOUR THINKING

10. Find 7% of 500.

Answer _____ answer

SHOW YOUR THINKING

11. Two Steps. A team played 80 games and won 65% of them. How many games did the team win, and how many did it lose?

Answer _____ wins and losses

SHOW YOUR THINKING

12. Find the Mistake. To find 9% of 200, Eli multiplied 200 by 0.9 and got 180. Explain the mistake.

Answer _____ the mistake and the answer

EXPLAIN WITH MATHEMATICAL EVIDENCE

Spiral review

13. From Lesson 4-3 Session 2. Estimate 10% of 630.

Answer _____

SHOW YOUR THINKING

14. From Lesson 4-2 Session 2. Which is greater, 0.65 or 62%?

Answer _____

SHOW YOUR THINKING

15. From Lesson 3-7 Session 1. Convert 5 meters to feet. (1 m is about 3.28 ft)

Answer _____

SHOW YOUR THINKING

Test practice

16. 40% of 90 is —

□ A. 36	□ B. 3.6
□ C. 360	□ D. 50

17. 5% of 600 is —

□ A. 3	□ B. 30
□ C. 300	□ D. 120

18. 12% written as a decimal is —

□ A. 12	□ B. 1.2
□ C. 0.12	□ D. 0.012

Check and revise

CHECK YOUR MATHEMATICS	HOW DID IT GO?
Decide whether the question asks for an estimate or an exact result. Every part answered / Work shown / Units labeled when needed	I can do this: Independently / With a hint / With help Question to revisit: _____

One correction or question I want to discuss: _____

Identify the whole. Check your result against 0%, 50%, and 100% of that amount.