Guided Practice

Find the percent of each number. (Examples 1–4)

1. 32% of 60 = 19.2

Show your work.

$\left(\frac{32}{100}\right)\left(\frac{60}{1}\right)$

$\frac{96}{5}$

$\frac{25}{5}$

2. 0.55% of 220 = 1.21

$\frac{.55}{100}(220)$

3. 275% of 4 = 11

$\frac{275}{100}\left(\frac{4}{1}\right)$

4. Troy wants to buy a jersey of his favorite MLS team. The jersey is 30% off the original price. If the original price of the jersey is $35, what is the amount Troy will save? (Example 5) $10.50

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5. **Building on the Essential Question** How do you find a percent of a number?

Sample answer: Write the percent as a decimal.

Multiply the decimal by the whole to find the part.

Rate Yourself!

Are you ready to mo
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For more help, go online
access a Personal Tutor.

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Independent Practice

Go online for Step-by-Step Solutions

The cafeteria at Midtown Middle School surveyed 575 students about their favorite food. Find the number of students that responded for each of the following. (Example 1)

1. chicken: 8% =

46

2. salad: 20% =

115

3. burgers: 16% =

92

4. fruit: 24% =

138

Find the percent of each number. (Examples 2–4)

5 0.9% of 1,000 =

9

6. 0.46% of 80 =

0.368

7. 350% of 96 =

336

8. 222% of 55 =

122.1

9 The original price of a pair of shoes is $42. The sale price is 20% off the original price. What is the amount off the original price?

(Example 5) **$8.40**

10. Torri had $20 to buy a birthday present f her dad. She decided to buy a DVD for $ The sales tax is 7%. Does she have enou money? Explain your reasoning.

yes; Sample answer: The total price wi

sales tax is $19.26.

11. Twenty-four students in Jamal's class are wearing tennis shoes. There are thirty students in his class. Jamal says that 70% of his class is wearing tennis shoes. Is Jamal correct? Explain your reasoning.

no; 70% of 30 is 21, not 24. 80% of 30 is 24.

12. MP **Use Math Tools** Marisol keeps track of her weekly quiz grades as shown in the table.

a. Complete the table.

b. In which class did Marisol have the higher score?

science

Test	Number Correct	Score	T
Math	68	**80%**	
Science	**63**	90%	

13. MP **Use Math Tools** Use the graphic organizer to compare and contrast percents and fractions. Use the phrases *less than*, *equal to*, and *greater than* to complete each statement. Write an example in the space provided.

Sample answers given for examples.

Percent	Shared Concept	Fraction
A whole is represented by a percent that is **equal to** 100%. Example: **100%**	whole	A whole is represented by a fraction with a numerator that is **equal to** the denominator. Example: $\frac{3}{3}$
Part of a whole is represented by a percent that is **less than** 100%. Example: **25%**	part of a whole	Part of a whole is represented by a fraction with a numerator that is **less than** the denominator. Example: $\frac{1}{3}$
An amount that is greater than one is represented by a percent that is **greater than** 100%. Example: **125%**	more than one	An amount that is greater than one is represented by a fraction with a numerator that is **greater than** the denominator. Example: $\frac{4}{3}$

H.O.T. Problems Higher Order Thinking

14. **Model with Mathematics** Write and solve a real-world problem in which the part of a whole results in a number greater than the whole itself.

Sample answer: The population of goldfish in a backyard pond grew by 150% over the summer. If there were originally 46 fish, what was the population at the end of the summer? 115 goldfish

15. **Justify Conclusions** Is 16% of 40 the same as 40% of 16? Explain your reasoning. **yes; 16% of 40 is 6.4 and 40% of 16 is 6.4.**

16. **Persevere with Problems** Find 15% of 15% of 15% of 500. How does this compare to finding 45% of 500? **1.6875; It is less than 45% of 500, which is 225.**

17. **Persevere with Problems** A number n is 25% of some number a and 35% of a number b. Is $a > b$, $a < b$, or is it impossible to determine the relationship? Explain. **Sample answer: If a number n is 25% of a and 35% of b, it is a greater part of b than it is of a. So, $a > b$.**