Cumulative Review

Use the graphic organizer to solve the following problem.

Ash trees are favored to make baseball bats. On average, 2 trees can make 120 baseball bats. How many baseball bats can be made from 5 trees?

Understand

What is the question?

Plan

What quantities am I comparing?

What do I know?

What quantities go together?

What am I looking for?

How would I set this up?

Solve

What is the most efficient method to solve?

Check

Is my answer reasonable? How do I know?

Practice 1

Use the bar model to organize the information in each problem. Identify the given and unknown information, set up the proportion, and solve the problem.

Percent Bar Method	Given Information	Set Up Proportions
1. Mindy spent $36 on gas last month. This month, she spent $7.20 less for the same amount of gas. What percent of the original amount did she save?		
	Part: Whole: Percent:	$$\frac{Part}{Whole} = \frac{Percent}{100}$$ $$\frac{\quad}{\quad} = \frac{\quad}{\quad}$$
2. The original price of a car is $12,000. The car is on sale for 15% off. What is the amount saved?		
	Part: Whole: Percent:	$$\frac{Part}{Whole} = \frac{Percent}{100}$$ $$\frac{\quad}{\quad} = \frac{\quad}{\quad}$$
3. A pair of shoes is on sale for 25% off. Marie calculated that she would save $23. What is the original price of the shoes?		
	Part: Whole: Percent:	$$\frac{Part}{Whole} = \frac{Percent}{100}$$ $$\frac{\quad}{\quad} = \frac{\quad}{\quad}$$

Practice 2

Use the bar model to organize the information in each problem. Identify the given and unknown information, set up the proportion, and solve the problem.

Percent Bar Method	Given Information	Set Up Proportions
1. Video games are 20% off. If Marcus saved $28, what was the original price of the video games he bought?		
	Part: Whole: Percent:	$\dfrac{Part}{Whole} = \dfrac{Percent}{100}$ $\underline{\quad} = \underline{\quad}$
2. The original price of a bicycle Lisa bought was $250. The bicycle is on sale for $50 off. What percent of the original price is the amount saved?		
	Part: Whole: Percent:	$\dfrac{Part}{Whole} = \dfrac{Percent}{100}$ $\underline{\quad} = \underline{\quad}$
3. The original price of the skateboard Julian wants to buy is $55. It is on sale for 15% off. What is the amount he will save?		
	Part: Whole: Percent:	$\dfrac{Part}{Whole} = \dfrac{Percent}{100}$ $\underline{\quad} = \underline{\quad}$

Name: _____

Independent Practice

Use the bar model to organize the information in each problem. Identify the given and unknown information, set up the proportion, and solve the problem.

Percent Bar Method	Given Information	Set Up Proportions
1. Selena spent $25 on a book from the bookstore. Michael spent $10 less on the same book when he bought it online. What percent did Michael save?		
	Part: Whole: Percent:	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\dfrac{\quad}{\quad} = \dfrac{\quad}{\quad}$
2. Paula received an 8% discount on her school clothes during Tax Free Weekend. She saved a total of $24. What is the original price of the clothes she bought?		
	Part: Whole: Percent:	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\dfrac{\quad}{\quad} = \dfrac{\quad}{\quad}$
3. The original price of the computer Steve bought was $900. Computers were on sale for 12% off. What is the amount Steve saved?		
	Part: Whole: Percent:	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\dfrac{\quad}{\quad} = \dfrac{\quad}{\quad}$

Answer Key: Cumulative Review

Use the graphic organizer to solve the following problem.

Ash trees are favored to make baseball bats. On average, 2 trees can make 120 baseball bats. How many baseball bats can be made from 5 trees?

Understand

What is the question?

How many baseball bats can be made from 5 trees?

Plan

What quantities am I comparing?

Trees and baseball bats

What do I know?

2 trees can make 120 baseball bats; 5 trees total

What quantities go together?

2 trees and 120 baseball bats; 5 trees and x baseball bats

What am I looking for?

Number of baseball bats

How would I set this up?

Units	Ratio 1	Ratio 2
Trees	2	5
Bats	120	x

$$\frac{2}{120} = \frac{5}{x}$$

Solve

What is the most efficient method to solve?

Units	Ratio 1	Unit rate	Ratio 2
Trees	$2 \div 2$	1×5	5
Bats	$120 \div 2$	60×5	300

$$\frac{2 \div 2}{120 \div 2} = \frac{1 \times 5}{60 \times 5} = \frac{5}{300}$$

Check

Is my answer reasonable? How do I know?

Ratio 1	Unit rate
$2 \div 2$	1
$120 \div 2$	60

$$\frac{2 \div 2}{120 \div 2} = \frac{1}{60}$$

Ratio 2	Unit rate
$5 \div 5$	1
$300 \div 5$	60

$$\frac{5 \div 5}{300 \div 5} = \frac{1}{60}$$

Answer Key: Practice 1

Use the bar model to organize the information in each problem. Identify the given and unknown information, set up the proportion, and solve the problem.

Percent Bar Method	Given Information	Set Up Proportions

1. Mindy spent $36 on gas last month. This month, she spent $7.20 less for the same amount of gas. What percent of the original amount did she save?

$36 ☐ 100% $7.2 ▨ x	Part: $7.20 Whole: $36 Percent: x	$\dfrac{Part}{Whole} = \dfrac{Percent}{100}$ $\dfrac{7.2}{36} = \dfrac{x}{100}$ $\dfrac{36x}{36} = \dfrac{720}{36}$ $x = 20\%$

2. The original price of a car is $12,000. The car is on sale for 15% off. What is the amount saved?

$12,000 ☐ 100% x ▨ 15%	Part: x Whole: $12,000 Percent: 15%	$\dfrac{Part}{Whole} = \dfrac{Percent}{100}$ $\dfrac{x}{12,000} = \dfrac{15}{100}$ $\dfrac{180,000}{100} = \dfrac{100x}{100}$ $\$1,800 = x$

3. A pair of shoes is on sale for 25% off. Marie calculated that she would save $23. What is the original price of the shoes?

x ☐ 100% $23 ▨ 25%	Part: $23 Whole: x Percent: 25%	$\dfrac{Part}{Whole} = \dfrac{Percent}{100}$ $\dfrac{23}{x} = \dfrac{25}{100}$ $\dfrac{25x}{25} = \dfrac{2,300}{25}$ $x = \$92$

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INTERVENTION

Answer Key: Practice 2

Use the bar model to organize the information in each problem. Identify the given and unknown information, set up the proportion, and solve the problem.

Percent Bar Method	Given Information	Set Up Proportions

1. Video games are 20% off. If Marcus saved $28, what was the original price of the video games he bought?

Percent Bar Method	Given Information	Set Up Proportions
x — 100% $28 — 20%	Part: $28 Whole: x Percent: 20%	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\dfrac{28}{x} = \dfrac{20}{100}$ $\dfrac{20x}{20} = \dfrac{2{,}800}{20}$ $x = \$140$

2. The original price of a bicycle Lisa bought was $250. The bicycle is on sale for $50 off. What percent of the original price is the amount saved?

Percent Bar Method	Given Information	Set Up Proportions
$250 — 100% $50 — x	Part: $50 Whole: $250 Percent: x	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\dfrac{50}{250} = \dfrac{x}{100}$ $\dfrac{250x}{250} = \dfrac{5{,}000}{250}$ $x = 20\%$

3. The original price of the skateboard Julian wants to buy is $55. It is on sale for 15% off. What is the amount he will save?

Percent Bar Method	Given Information	Set Up Proportions
$55 — 100% x — 15%	Part: x Whole: $55 Percent: 15%	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\dfrac{x}{55} = \dfrac{15}{100}$ $\dfrac{825}{100} = \dfrac{100x}{100}$ $\$8.25 = x$

Answer Key: Independent Practice

Use the bar model to organize the information in each problem. Identify the given and unknown information, set up the proportion, and solve the problem.

Percent Bar Method	Given Information	Set Up Proportions

1. Selena spent $25 on a book from the bookstore. Michael spent $10 less on the same book when he bought it online. What percent did Michael save?

$25 �100% $10 ▮ x	Part: $10 Whole: $25 Percent: x	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\dfrac{10}{25} = \dfrac{x}{100}$ $\dfrac{25x}{25} = \dfrac{1{,}000}{25}$ $x = 40\%$

2. Paula received an 8% discount on her school clothes during Tax Free Weekend. She saved a total of $24. What is the original price of the clothes she bought?

x �100% $24 ▮ 8%	Part: $24 Whole: x Percent: 8%	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\times 3$ $\dfrac{24}{x} = \dfrac{8}{100}$ $\times 3$ $x = 100 \times 3$ $x = \$300$

3. The original price of the computer Steve bought was $900. Computers were on sale for 12% off. What is the amount Steve saved?

$900 �100% x ▮ 12%	Part: x Whole: $900 Percent: 12%	$\dfrac{\text{Part}}{\text{Whole}} = \dfrac{\text{Percent}}{100}$ $\times 9$ $\dfrac{x}{900} = \dfrac{12}{100}$ $\times 9$ $x = 12 \times 9$ $x = \$108$