

Name _____ Date _____
The Lion, the Witch and the Wardrobe **FWW** Chapters 12-14



1. _____ They walked in silence drinking it all in, passing through patches of warm sunlight into cool green thickets..."

What does "drinking it all in" mean as used in this quotation from the novel?

- A. quenching their thirst
- B. walking in water
- C. feeling the sunshine
- D. enjoying the experience

2. _____ "...dense masses of flowering currant and among hawthorn bushes where the sweet smell was overpowering..."

Which two literary devices are found in this quotation?

- A. simile and metaphor
- B. alliteration and imagery

Refer to "LWW" Notes

3. _____ "They had left the course of the big river some time ago..."

What does course mean as used in this quotation?

- A. option
- B. program
- C. class
- D. path

4. _____ Read the chart below.

CAUSE	EFFECT
	The flood began in the river valley.

Which event best fits in the blank rectangle?

- A. The snow melted in the river.
- B. It started raining very hard.
- C. Big waves were in the river.
- D. It started snowing very hard.

5. _____ What did Aslan say about saving Edmund?

- A. It would take about a day or so.
- B. It would be harder than you think.
- C. It was an impossible feat.
- D. It would be supported by the queen.

6. _____ **Who is said to be High King over all the rest?**

- A. Peter
- B. Edmund
- C. Tumnus
- D. Maugrim

7. _____ **Who attacked Susan?**

- A. the White Witch
- B. a sly fox
- C. an evil faun
- D. Maugrim the wolf

8. _____ **What did Aslan remind Peter to always do?**

- A. Be kind to strangers.
- B. Eat a good dinner.
- C. Wipe his sword.
- D. Get a good night's sleep.

9. _____ **What do you suppose "bane" means in Peters new name: Sir Peter - Wolf's Bane ?**

- A. misfortune
- B. friend
- C. desire
- D. food

10. _____ **What plan does the witch have with Edmund?**

- A. to become friends with him
- B. to use him to work at the castle
- C. to use him as bait for the others
- D. to trick him to eat more candy

11. _____ **Who turned into a stump and a boulder?**

- A. Aslan and Lucy
- B. The witch and the dwarf
- C. Aslan and Peter
- D. The witch and the wolf

12. _____ **"Here is your brother," said Aslan, "and there is no need to talk to him about what is past."**

What did he mean by this?

- A. Edmund learned his lesson.
- B. Aslan didn't talk to Edmund yet.
- C. Edmund is angry at Aslan.
- D. Aslan lied to Edmund about his past.

13. _____ **What did the White Witch and Aslan talk about in private?**

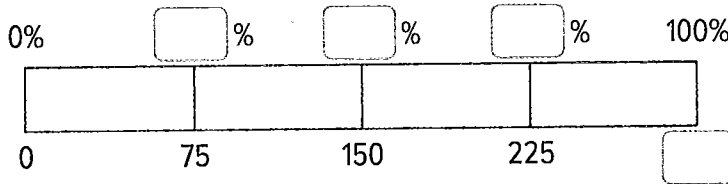
- A. Who should sit on the stone throne.
- B. What should be done about Edmund.
- C. the age of Lucy
- D. the Turkish Delight

Estimate with Percents



Real-World Link

Movies Josefina surveyed 298 students and found that 52% like scary movies. Estimate the number of students that like scary movies.



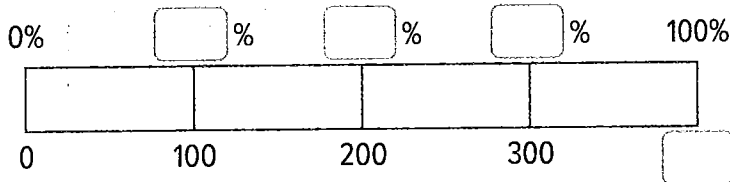
- Write the common percents from 0% to 100% at the top of the bar diagram.
- What common percent is 52% close to?
Shade the bar diagram above to show your answer.
- Round 298 to the nearest hundred. $298 \approx$
Write your answer in the box below 100%.
- Use the bar diagram to estimate 52% of 298. Explain.

.....

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- Use the bar diagram below to estimate 73% of 400. _____



Which **MP** Mathematical Practices did you use?

Shade the circle(s) that applies.

- | | |
|--|---|
| <input type="checkbox"/> ① Persevere with Problems | <input type="checkbox"/> ⑤ Use Math Tools |
| <input type="checkbox"/> ② Reason Abstractly | <input type="checkbox"/> ⑥ Attend to Precision |
| <input type="checkbox"/> ③ Construct an Argument | <input type="checkbox"/> ⑦ Make Use of Structure |
| <input type="checkbox"/> ④ Model with Mathematics | <input type="checkbox"/> ⑧ Use Repeated Reasoning |



Essential Question

WHEN is it better to use a fraction, a decimal, or a percent?



Common Core State Standards

Content Standards
6.RP.3, 6.RP.3c

MP Mathematical Practices
1, 3, 4, 5



Estimate the Percent of a Number

Estimating with percents will provide a reasonable solution to many real-world problems. Choose compatible numbers when estimating the percent of a number.

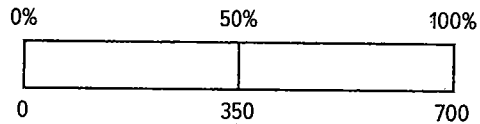
Examples

Tutor

1. Estimate 47% of 692.

47% is close to 50% or $\frac{1}{2}$. Round 692 to 700.

$\frac{1}{2}$ of 700 is 350. $\frac{1}{2}$ or *half* means to divide by 2.



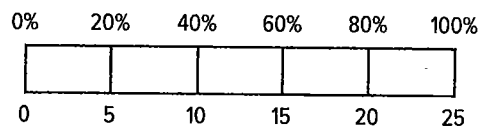
So, 47% of 692 is about 350.

2. Estimate 60% of 27.

60% is $\frac{3}{5}$.

Round 27 to 25 since it is divisible by 5.

$\frac{1}{5}$ of 25 is 5. $\frac{1}{5}$, or *one fifth*, means divide by 5.



So, $\frac{3}{5}$ of 25 is 3×5 or 15.

So, 60% of 27 is about 15.

Show your work

a. _____

b. _____

c. _____

Got it? Do these problems to find out.

Estimate each percent.

a. 48% of 76

b. 18% of 42

c. 73% of 41



Example



3. **STEM** Polar bears can eat as much as 10% of their body weight in less than one hour. If an adult male polar bear weighs 715 pounds, about how much food can he eat in one hour?

To determine how much food a polar bear can eat in one hour, you need to estimate 10% of 715.

Method 1 Find equivalent ratios.

$$10\% = \frac{1}{10} \text{ and } 715 \approx 700$$

$$\frac{1}{10} = \frac{\square}{700} \quad \text{Write the equivalent ratios.}$$

$$\frac{1}{10} = \frac{\square}{700} \quad \text{Since } 10 \times 70 = 700, \text{ multiply 1 by 70.}$$

The unknown value is 70.

Method 2 Use mental math.

$$10\% = \frac{1}{10} \text{ and } 715 \approx 700$$

$$\frac{1}{10} \text{ of } 700 \text{ is } 70.$$

So, a polar bear can eat about 70 pounds of food in one hour.

Got it? Do this problem to find out.

- d. Kayleigh decided to donate 30% of her savings. If she has \$238 in her savings account, about how much will she donate?

Show your work.

d. _____

Estimate Using the Rate per 100

You can also estimate with percents using a rate per 100.

Examples



4. Estimate 17% of 198.

$$17\% = 17 \text{ out of } 100 \quad \text{Write the percent as a rate per 100.}$$

$$198 \approx 200 \quad \text{Round to the nearest hundred.}$$

Since 200 is $100 + 100$, add $17 + 17$ to estimate 17% of 198.

34 is about 17% of 198.

STOP and Reflect

When would you use mental math to estimate the percent of a number? Explain below.



Show your work.

e. _____

f. _____

g. _____

5. An airline records the snack orders of passengers. Last year 9% of all passengers ordered ginger ale to drink. There are 408 passengers on the flight to Houston, Texas. About how many passengers does the airline expect to order ginger ale on this flight?

Estimate 9% of 408.

$$9\% = 9 \text{ out of } 100$$

Write the percent as a rate per 100.

$$408 \approx 400$$

Round to the nearest hundred.

Since 400 is 100×4 , multiply 9×4 to estimate 9% of 408.

36 is about 9% of 408. So, about 36 passengers will order ginger ale.

Got it? Do these problems to find out.

Estimate using a rate per 100.

e. 27% of 307

f. 76% of 192

- g. Last year 24% of the zoo visitors were under the age of 3. Last week, the zoo had 996 visitors. About how many of the zoo visitors were under the age of 3?

Guided Practice



Estimate each percent. (Examples 1 and 2)

1. 19% of \$53 \approx _____

2. 21% of 96 \approx _____

3. 59% of 16 \approx _____

Show your work.

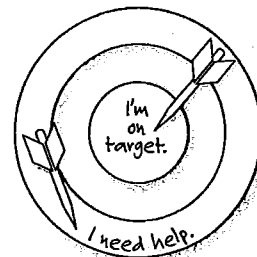
4. A purse that originally cost \$29.99 is on sale for 50% off. About how much is the sale price of the purse? (Example 3)
- _____

5. Mr. Marcucci received a bonus of \$496 from his employer. He has to pay 33% of his bonus to taxes. How much will Mr. Marcucci pay in taxes? (Examples 4 and 5)
- _____

6. **Building on the Essential Question** When is an estimate more useful than an exact answer?
- _____

Rate Yourself!

How confident are you about estimating with percents? Shade the ring on the target.



For more help, go online to access a Personal Tutor.



Independent Practice

Go online for Step-by-Step Solutions



Estimate each percent. (Examples 1 and 2)

1 47% of \$118 ≈ _____

2. 19% of 72 ≈ _____

3 42% of 16 ≈ _____

4. 67% of 296 ≈ _____

Show your work →

Estimate using a rate per 100. (Example 4)

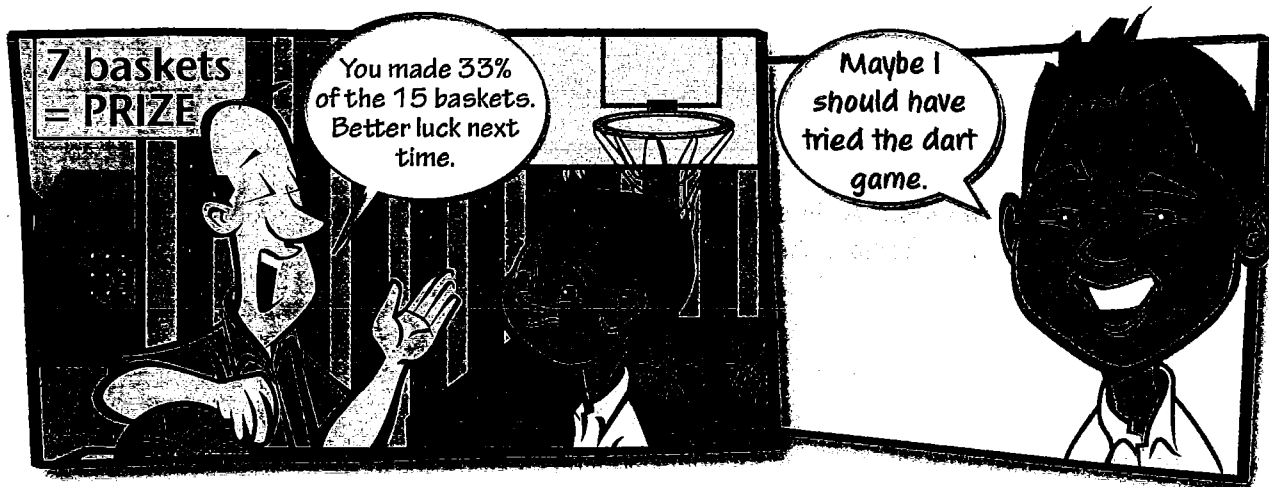
5. 24% of 289 ≈ _____

6. 67% of 208 ≈ _____

7. **STEM** Penguins spend almost 75% of their lives in the sea. An Emperor Penguin in the wild has a life span of about 18 years. About how many years does this penguin spend in the sea? (Example 3)

8. In Nathan's baseball card collection, 58% of the cards are players from the National League. He has 702 baseball cards. About how many baseball cards are players from the National League? Use a rate per 100 to estimate. (Example 5)


9. **MP Model with Mathematics** Refer to the graphic novel frame below for Exercises a–b.



a. Suppose Angel is shooting baskets and makes 40% of the 15 shots. Does he win a prize? Explain your reasoning.

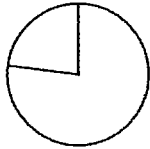
b. About what percent of the baskets need to be made in order to win a prize? _____

10. About 42% of Alaska's population lives in the city of Anchorage. If Alaska has a total population of 648,818, about how many people live in Anchorage?

 During the basketball season, Tyrone made 37 baskets out of 71 attempts. About what percent of his shots did he miss?

MP Use Math Tools Estimate the percent that is shaded in each figure.

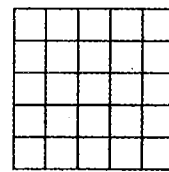
12.



13.



14.



 **H.O.T. Problems** Higher Order Thinking

15. **MP Reason Inductively** Rachel wants to buy a shirt regularly priced at \$32. It is on sale for 40% off. Rachel estimates that she will save $\frac{2}{5}$ of \$30 or \$12. Will the actual amount be more or less than \$12? Explain.

16. **MP Persevere with Problems** Order 10% of 20, 20% of 20, and $\frac{1}{5}$ % of 20 from least to greatest.

17. **MP Construct an Argument** A classmate is trying to estimate 42% of \$122. Explain how your classmate should solve the problem.

18. **MP Model with Mathematics** Melissa's homeroom has raised 63% of its goal for the school fundraiser. Matt's homeroom has raised 48%. Create a situation in which Matt's homeroom raised more money than Melissa's homeroom.

Lesson 6 Homework Practice

Estimate with Percents

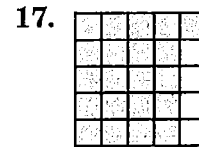
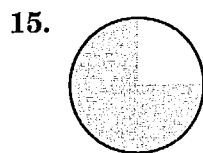
Estimate each percent.

1. 51% of 62
2. 39% of 42
3. 78% of 148
4. 34% of 99
5. 74% of 238
6. 70% of 103
7. 22% of 152
8. 91% of 102
9. 26% of 322
10. 65% of 181
11. 98% of 60
12. 11% of 10

13. Estimate twenty-nine percent of forty-eight.

14. Estimate sixty-two percent of one hundred twenty-four.

Estimate the percent that is shaded in each figure.



18. **WORK** Karl made \$365 last month doing odd jobs after school. If 75% of the money he made was from doing yardwork, about how much did Karl make doing yardwork?

19. **HOMEWORK** Jin spent 32 hours on math and language arts homework last month. She spent about 30% of this total time on math. About how many hours were spent on math?