

Name: _____

Date: _____

CHAPTER



Percent

Lesson 6.1 Understanding Percent

Express each percent as a fraction or a mixed number in simplest form.

1. 24% _____

2. 96% _____

3. 128% _____

4. 150% _____

5. 225% _____

6. 360% _____

7. 698% _____

8. 775% _____

Express each percent as a decimal.

9. 8% _____

10. 32% _____

11. 85% _____

12. 99% _____

13. 130% _____

14. 568% _____

15. 285% _____

16. 380% _____

Solve. Show your work.

17. Out of a total of 300 animals in the zoo, 45 are birds. What percent of the animals in the zoo are birds?

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18. Of the 400 vehicles that passed the intersection, 98 are buses.
What percent of the vehicles that passed the intersection are buses?
19. Of the 400 students at a basketball game, 180 are girls and the rest are boys.
What percent of the students at the basketball game are boys?
20. Out of 30 questions, Ahmad answered 12 of them incorrectly. What percent of the questions did he answer correctly?
21. Anna bakes 12 blueberry muffins, 20 bran muffins, and 8 apple muffins.
What percent of the muffins are blueberry?
22. The table shows the number of books sold at a book sale this week.

Monday	Tuesday	Wednesday	Thursday	Friday
23	40	28	52	77

What percent of the total books sold were sold on Friday?

Brain @ Work

- $14.4 \times 1,000 = 14,400$ mL
1 minute $\rightarrow 140 + 100 = 240$ mL
 $\frac{14,400}{240} = 60$ min = 1 h
It will take 1 hour to fill the fish tank completely.
- $4.8 \times 1,000 = 4,800$ mL
Water leaking out of the tank in 1 minute \rightarrow
 $270 - 150 = 120$ mL
 $4,800 \div 120 = 40$ min
It will take 40 minutes to empty the tank.

Chapter 6

Lesson 6.1

- $\frac{6}{25}$
 - $\frac{24}{25}$
 - $1\frac{7}{25}$
 - $1\frac{1}{2}$
 - $2\frac{1}{4}$
 - $3\frac{3}{5}$
 - $6\frac{49}{50}$
 - $7\frac{3}{4}$
 - 0.08
 - 0.32
 - 0.85
 - 0.99
 - 1.3
 - 5.68
 - 2.85
 - 3.8
17. $\frac{45}{300} \times 100\% = 15\%$
15% of the animals in the zoo are birds.
18. $\frac{98}{400} \times 100\% = 24\frac{1}{2}\%$
 $24\frac{1}{2}\%$ of the vehicles that passed the intersection are buses.
19. Boys $\rightarrow 400 - 180 = 220$
 $\frac{220}{400} = 55\%$
55% of the students at the basketball game are boys.
20. Correct $\rightarrow 30 - 12 = 18$
 $\frac{18}{30} \times 100\% = 60\%$
He answered 60% of the questions correctly.
21. Total = $12 + 20 + 8 = 40$
 $\frac{12}{40} \times 100\% = 30\%$
30% of the muffins are blueberry.
22. Total = $23 + 40 + 28 + 52 + 77 = 220$
 $\frac{77}{220} \times 100\% = 35\%$
35% of the books were sold on Friday.

Lesson 6.2

- 80%
 - $62\frac{1}{2}\%$
 - $53\frac{1}{3}\%$
 - 175%
 - 370%
 - 245%
 - 8%
 - 56%
 - 90%
 - 107%
 - 275%
 - 350%
 - $\frac{33}{400}$
 - $\frac{61}{200}$
 - $\frac{1}{3}$
 - $\frac{5}{12}$
 - $\frac{9}{16}$
 - $\frac{7}{8}$
 - 43%
 - 58%
 - 61%
 - 40%
 - Total amount = 2.85 kg + 3.15 kg
 $= 6$ kg
 $\frac{2.85}{6} \times 100\% = 47\frac{1}{2}\%$
 $47\frac{1}{2}\%$ of the mixture is sugar.
24. a) Total = $30 + 15 + 40 + 25 + 10 = 120$
 $\frac{40}{120} \times 100\% = 33\frac{1}{3}\%$
 $33\frac{1}{3}\%$ of students surveyed prefer strawberries.
- b) $\frac{10}{120} \times 100\% = 8\frac{1}{3}\%$
 $8\frac{1}{3}\%$ of students surveyed prefer the least favorite fruit (peaches).
- c) $30 + 25 = 55$
 $\frac{55}{120} \times 100\% = 45\frac{5}{6}\%$
 $45\frac{5}{6}\%$ of students surveyed prefer apples or pears.

Lesson 6.3

- $100\% \rightarrow 36$ ft
 $1\% \rightarrow \frac{36}{100}$
 $45\% \rightarrow \frac{36}{100} \times 45 = 16.2$ feet
- $43\frac{3}{4}\%$ miles
- $156\frac{2}{5}$ gallons
- 117 pounds
- 54 hours
- 550
- 375
- 260
- 300
- $100\% - 64\% = 36\%$
 $36\% \times 325 = 117$
117 children at the zoo are girls.