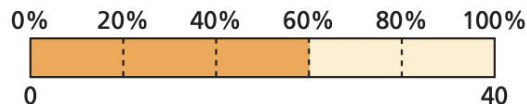


Vocabulary and Concept Check

- VOCABULARY** Write the percent proportion in words.
- WRITING** Explain how to use a proportion to find 30% of a number.
- NUMBER SENSE** Write and solve the percent proportion represented by the model.



- WHICH ONE DOESN'T BELONG?** Which proportion does *not* belong with the other three? Explain your reasoning.

$$\frac{15}{w} = \frac{50}{100}$$

$$\frac{12}{15} = \frac{40}{n}$$

$$\frac{15}{25} = \frac{p}{100}$$

$$\frac{a}{20} = \frac{35}{100}$$

Practice and Problem Solving

Use a model to estimate the answer to the question. Use a ratio table to check your answer.

- What number is 24% of 80?
- 15 is 30% of what number?
- 20 is what percent of 52?
- 15 is what percent of 40?
- What number is 120% of 70?
- 48 is 75% of what number?

Write and solve a proportion to answer the question.

11. What percent of 25 is 12?
12. 14 is what percent of 56?
13. 25% of what number is 9?
14. 36 is 0.9% of what number?
15. 75% of 124 is what number?
16. 110% of 90 is what number?
17. What number is 0.4% of 40?
18. 72 is what percent of 45?



$$\begin{aligned} \frac{a}{w} &= \frac{p}{100} \\ \frac{a}{34} &= \frac{40}{100} \\ a &= 13.6 \end{aligned}$$

- ERROR ANALYSIS** Describe and correct the error in using the percent proportion to answer the question below.

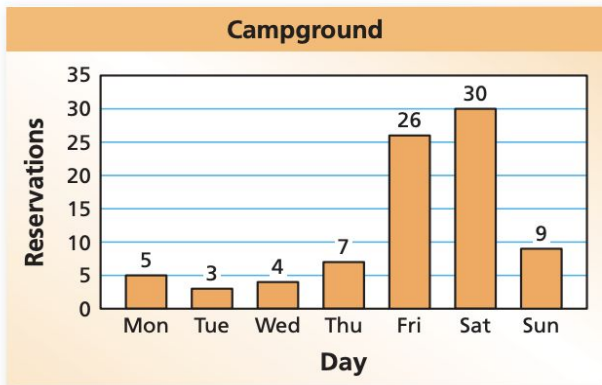
“40% of what number is 34?”

- FITNESS** Of 140 seventh-grade students, 15% earn the Presidential Physical Fitness Award. How many students earn the award?
- COMMISSION** A salesperson receives a 3% commission on sales. The salesperson receives \$180 in commission. What is the amount of sales?



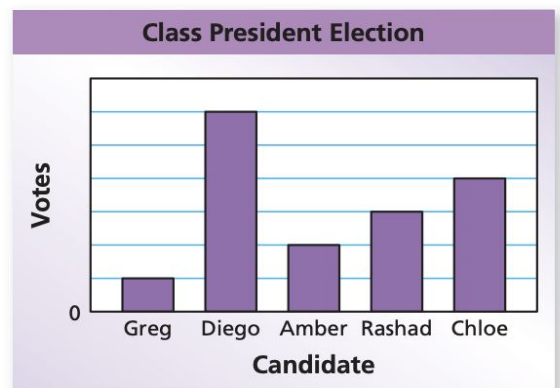
Write and solve a proportion to answer the question.

22. 0.5 is what percent of 20? 23. 14.2 is 35.5% of what number?
24. $\frac{3}{4}$ is 60% of what number? 25. What number is 25% of $\frac{7}{8}$?
26. **HOMEWORK** You are assigned 32 math exercises for homework. You complete 87.5% of these before dinner. How many do you have left to do after dinner?



27. **HOURLY WAGE** Your friend earns \$10.50 per hour. This is 125% of her hourly wage last year. How much did your friend earn per hour last year?
28. **CAMPSITE** The bar graph shows the numbers of reserved campsites at a campground for one week. What percent of the reservations were for Friday or Saturday?

29. **PROBLEM SOLVING** A classmate displays the results of a class president election in the bar graph shown.
- What is missing from the bar graph?
 - What percent of the votes does the last-place candidate receive? Explain your reasoning.
 - There are 124 votes total. How many votes does Chloe receive?



30. **REASONING** 20% of a number is x . What is 100% of the number? Assume $x > 0$.
31. **Structure** Answer each question. Assume $x > 0$.
- What percent of $8x$ is $5x$?
 - What is 65% of $80x$?



Fair Game Review what you learned in previous grades & lessons

Evaluate the expression when $a = -15$ and $b = -5$. (Section 1.5)

32. $a \div b$ 33. $\frac{b + 14}{a}$ 34. $\frac{b^2}{a + 5}$

35. **MULTIPLE CHOICE** What is the solution of $9x = -1.8$? (Section 3.4)

- (A) $x = -5$ (B) $x = -0.2$ (C) $x = 0.2$ (D) $x = 5$