

1. **DINING** Jonas and Linda's restaurant bill comes to \$23.40. They are planning to tip the waiter 15% of their bill. How much money should they leave for a tip?

What is 15% of \$23.40?

$$N = .15 \cdot 23.40$$

$$N = \$3.51$$

2. **CHESS** The Briarwood Middle School chess club has 55 members. 22 of the members are in seventh grade. What percent of the members of the chess club are in seventh grade?

22 is what % of 55?

$$22 = N \cdot 55$$

$$\frac{22}{55} = \frac{N}{55}$$
$$N = .4 = 40\%$$

3. **TENNIS** In the city of Springfield, 75% of the parks have tennis courts. If 15 parks have tennis courts, how many parks does Springfield have altogether?

15 is 75% of what num?

$$15 = .75 \cdot N$$

$$\frac{15}{.75} = \frac{.75 \cdot N}{.75}$$

$$N = 20$$

4. **COLLEGE** There are 225 students in eighth grade at Jefferson Middle School. A survey shows that 64% of them are planning to attend college. How many Jefferson eighth grade students are planning to attend college?

What is 64% of 225?

$$N = .64 \cdot 225$$

$$N = 144$$

5. **BASEBALL** In a recent season, the Chicago White Sox won 99 out of 162 games. What percent of games did the White Sox win? Round to the nearest tenth if necessary.

99 is what % of 162?

$$\frac{99}{162} = N\% \cdot \frac{162}{162}$$
$$N = .611 = \boxed{61\%}$$

7. **SPACE** On Mars, an object weighs 38% as much as on Earth. How much would a person who weighs 165 pounds on Earth weigh on Mars?

What is 38% of 165?

$$N = .38 \cdot 165$$

$$\boxed{N = 62.7}$$

6. **HOUSING** In the Stoneridge apartment complex, 35% of the apartments have one bedroom. If there are 49 one-bedroom apartments, what is the total number of apartments at Stoneridge?

49 is 35% of what?

$$\frac{49}{35} = \frac{.35 \cdot N}{.35}$$
$$\boxed{N = 140}$$

8. **FOOTBALL** In a recent season, quarterback Jake Plummer of the Denver Broncos had 7 passes intercepted out of 456 attempts. What percent of Jake Plummer's passes were intercepted? Round to the nearest tenth if necessary.

7 is what % of 456?

$$\frac{7}{456} = N\% \cdot \frac{456}{456}$$
$$\boxed{N = 1.5\%}$$

22. In a school survey, 248 students, or 32% of the sample, said they worked part time during the summer. How many students were surveyed? 248 is 32% of what?

$$248 = .32 \cdot N$$

$$N = 775$$

24. Jason earns \$200 per week plus 8% commission on his sales. How much were his sales last week if Jason earned \$328?

\$128 is 8% of what

$$128 = .08 \cdot N$$

$$N = \$1,600$$

26. Linda earns \$40 base pay per week, plus 10% commission on all sales. What were her sales if she made \$112 in one week?

$$\frac{-40}{\$72}$$

72 is 10% of what?

$$\frac{72}{.10} = \frac{.10 \cdot N}{.10}$$

$$N = 720$$

21. In a recent survey, 216 people, or 54% of the sample, said they usually went to a family restaurant when they went out to eat. How many people were surveyed?

216 is 54% of what?

$$216 = .54 \cdot N$$

$$N = 400$$

23. Juliet sold a house for \$112,000. What percent commission did she receive if she earned \$6,720?

6,720 is what % of 112,000?

$$6,720 = N\% \cdot 112,000$$

$$N = 6\%$$

25. Stella makes 2% royalties on a book she wrote. How much money did her book earn in sales last year if she made \$53,000 in royalties?

53,000 is 2% of what?

$$53,000 = .02 \cdot N$$

$$N = 2,650,000$$