

Lesson 3-2: Connect Percent and Proportion

1. Sample answer: A percent situation is a kind of proportional relationship. The percent is a part of a whole that is equal to 100.
2. Sample answer: A percent is a ratio comparing a number to 100, so the denominator is always 100.
3. Sample answer: Because $\frac{150}{100}$ represents 150%, that means that 75 must be greater than w , so w is less than 75.
4. $\frac{17}{25} = \frac{68}{100}$
5. a. $\frac{n}{180} = \frac{2}{100}$
3.6
b. $\frac{17}{40} = \frac{p}{100}$
42.5%
6. No; Sample answer: 1,800 is 60% of 3,000. She wanted at least 70%, which is \$2,100.
7. $\frac{200}{100}$; 550
8. $\frac{p}{100}$; 0.3%
9. 55%
10. a. 25%
b. 5%
11. a. The tax was 7%.
b. \$21.00
12. Sample answer: 380% is equivalent to 3.80, and $3.8 \cdot 60$ is close to $4 \cdot 60$, which is 240, so 240 is a good estimate.
13. Yes; Sample answer: If the ratio of regular mail to junk mail is 2 to 1, then the ratio of junk mail to total mail is 1 to 3, or $\frac{1}{3}$. The fraction $\frac{1}{3} = 33\frac{1}{3}\%$, or 33.3%.
14. $\approx 59\%$
15. 175%
16. Sample answer: If there are 10,000 students and 1,000 employees, then 27% of 10,000, or 2,700 students drive to school, while 94% of 1,000, or 940 teachers and employees do the same.
17. \$110.00; \$22.00
18. $\frac{x}{30} = \frac{140}{100}$; \$42
19. a. D
b. 4 paddles; Sample answer: He sells the paddles for 180% of \$35, or \$63. $250 \div 63 \approx 3.97$. He can only sell a whole number of paddles, so he needs to sell 4