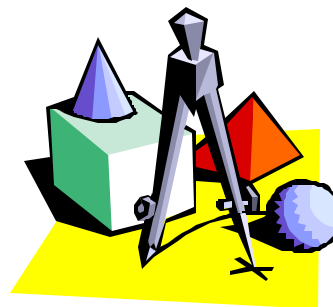


Algebra/Geometry Institute Summer 2003

Lesson 2

Faculty Name: Collis L. Grisby
School: Shelby Middle School
City: Shelby, Ms
Grade Level: 6th



1 Teaching objective(s)

- ❖ The student will learn to express percents as fractions and vice versa.

2 Instructional Activities

- ❖ The lesson will begin with a review of percents and how a percent is a ratio that compares a number to 100. A grid of 100 squares will be given to the students as a warm-up exercise to emphasize the relationship between a percent and 100. (Attachment #1)
- ❖ Following the students will learn how to express percents as fractions by placing the number over 100 and putting it into simplest form.

Classroom examples:

1. 30% means “30 out of 100.”

$$30\% = \frac{30}{100}$$

*Express the percent as a fraction
with a denominator of 100.*

$$= \frac{30}{10} \text{ and } \frac{100}{10}$$

*Simplify. Divide the numerator and
denominator by 10, the GCF of
30 and 100.*

$$= \frac{3}{10}$$

- ❖ To express a fraction as a percent, the student will set up a proportion and solve for the variable (n). The cross product procedure will be used to complete the final step of finding the equivalent percent and placing the percent sign (%) behind the number.

Classroom example:

$$1. \quad \frac{3}{4} = \frac{n}{100}$$

Set up a proportion.

$$\frac{8}{5} = \frac{n}{100}$$

$$3(100) = 4(n)$$

$$300 = 4n$$

$$\frac{300}{4} = \frac{4n}{4}$$

$$75 = n$$

Find the cross products.

$$8(100) = 5(n)$$

$$800 = 5n$$

$$\frac{800}{5} = \frac{5n}{5}$$

$$160 = n$$

Divide.

So, $\frac{3}{4}$ is equivalent to 75%.

So, $\frac{8}{5}$ is equivalent to 160%.

- ❖ Upon completion of a question and answer section with the students being chosen at random, the following activity will be given to the students to be completed by the end of class as a daily assessment.

Direction: Express each percent as a fraction in simplest form.

1. 13%

2. 25%

3. 8%

4. 60%

5. 105%

6. 70%

7. 80%

8. 45%

9. 20%

10. 14%

11. 75%

12. 120%

13. 5%

14. 2%

15. 450%

Express each fraction as a percent.

16. $\frac{77}{100}$

17. $\frac{3}{4}$

18. $\frac{17}{20}$

19. $\frac{3}{25}$

20. $\frac{3}{10}$

21. $\frac{27}{50}$

22. $\frac{2}{5}$

23. $\frac{3}{50}$

24. $\frac{9}{20}$

25. $\frac{8}{5}$

26. $\frac{1}{4}$

27. $\frac{1}{5}$

28. $\frac{19}{20}$

29. $\frac{7}{10}$

30. $\frac{11}{25}$

3 Materials and Resources

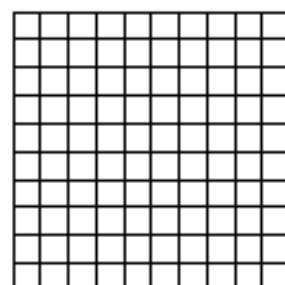
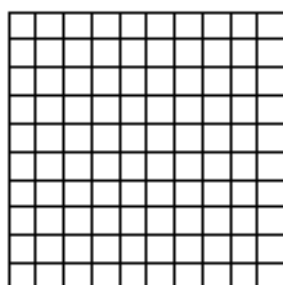
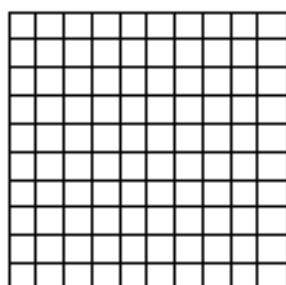
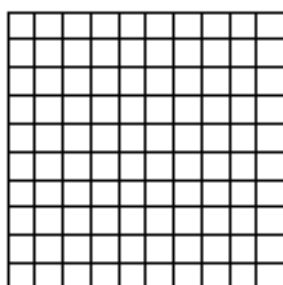
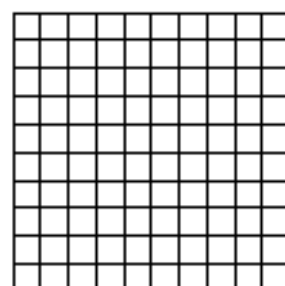
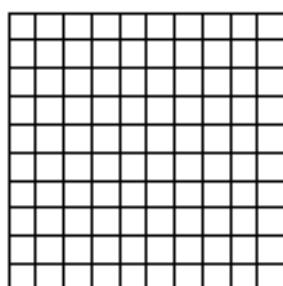
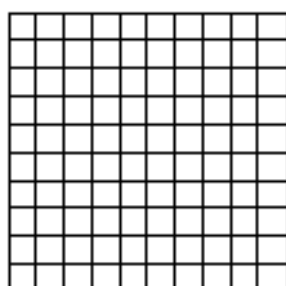
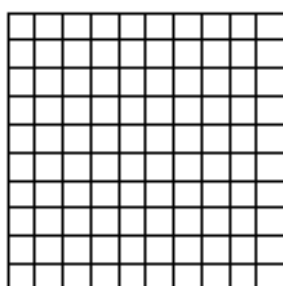
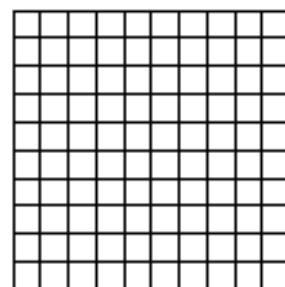
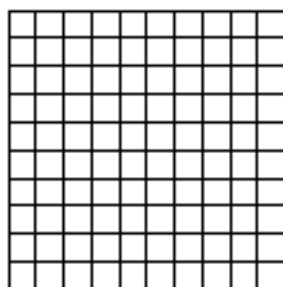
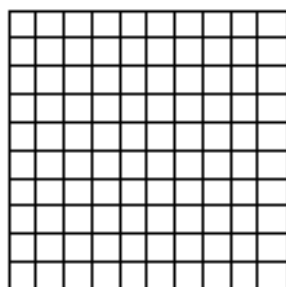
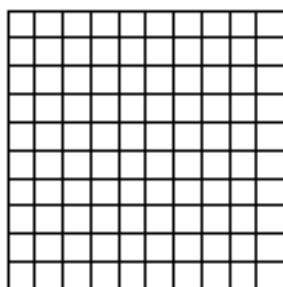
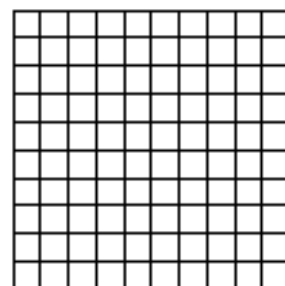
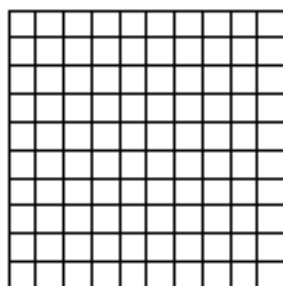
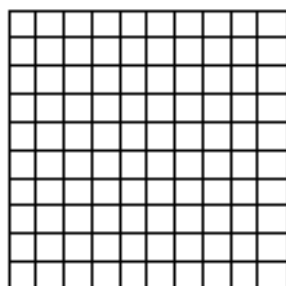
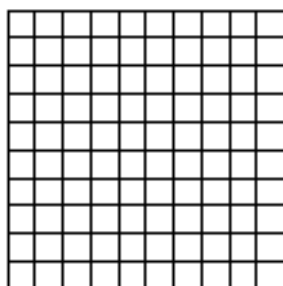
- ❖ White board, dry markers, paper, pencils, and a page of 10 x 10 grids.

4 Assessment

- ❖ Oral and written responses, class participation, and graded individual responses

10 x 10 Grids for Solving Percent Problems

Name _____



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