

Everyday Mathematics

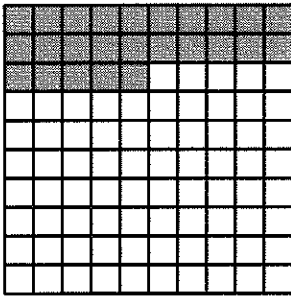
Grade 4

Unit 9

Name: _____

1. Gloria made 2 out of 8 shots in the school basketball free-throw contest.
 - a. What fraction of the shots did she make?
 - b. What percent of the shots did she make?
 - c. At this rate, how many shots would she make if she took 100 shots?
-

2. Peter set a goal of jogging a total of 100 miles over the summer. He filled in the following square to keep track of the miles he ran. During the first two weeks of July, he jogged 25 miles.



- a. What fraction of 100 miles did he jog in 2 weeks?
- b. What percent of 100 miles did he jog?
- c. At this rate, how many weeks would it take him to jog 100 miles?

3. Fill in the table of equivalent fractions, decimals, and percents.

Fraction	Decimal	Percent
$\frac{1}{4}$		
	0.75	
		60%
	0.10	
		90%
$\frac{6}{6}$		

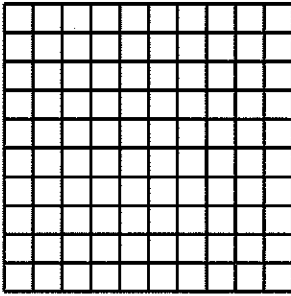
4. Use a calculator to rename each fraction as a decimal.

- a. $\frac{3}{16}$
- b. $\frac{6}{24}$
- c. $\frac{9}{48}$

5. Use a calculator to rename each fraction as a percent.

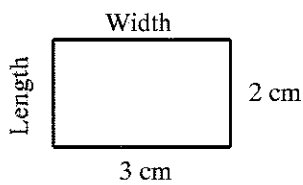
- a. $\frac{7}{8}$
- b. $\frac{14}{32}$
- c. $\frac{2}{32}$

6. Shade 30% of the given square.



- What fraction of the square did you shade?
- Write this fraction as a decimal.
- What percent of the square is *not* shaded?

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7. Find the area and the perimeter of the rectangle. Write number models to show what you did to get the answers.



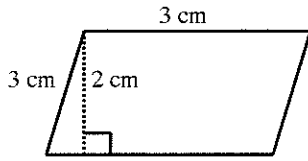
Perimeter = _____ cm

Number model: _____

Area = _____ cm^2

Number model: _____

8. Find the area and the perimeter of the parallelogram. Write number models to show what you did to get the answers.



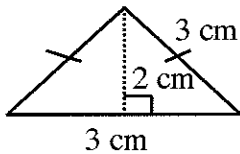
Perimeter = _____ cm

Number model: _____

Area = _____ cm^2

Number model: _____

9. Find the area and the perimeter of the triangle. Write number models to show what you did to get the answers.



Perimeter = _____ cm

Number model: _____

Area = _____ cm^2

Number model: _____

Make a true sentence by inserting parentheses.

10. $3 * 5 + 39 = 132$

Make a true sentence by inserting parentheses.

11. $30 - 18 + 8 = 20$

12. $63/9 - 22 = -15$

13. $4 * 2 + 11 + 21 = 136$

14. John bought a jacket that sold for \$220. He had a coupon for a 10% discount.
- How much money did he save with the discount?
 - How much money did he pay for the jacket?
-

15. Anita is buying a washing machine. The washing machine she wants costs \$400 at both Nx's Department Store and Al's Department Store. After New Year's Day, Nx's Department Store put it on sale at a savings of $\frac{1}{10}$ off the regular price. Al's Department Store offered a 40% discount on all items. At which store should Anita buy the washing machine? Why?
-

16. Estimate to locate the position of the decimal point in the product. Write a number model to show how you estimated the answer.
- $0.03 * 41 = 123$

Number model: _____

17. Estimate to locate the position of the decimal point in the quotient. Write a number model to show how you estimated the answer.

$225.24/6 = 3754$

Number model: _____

a. $\frac{2}{8}$ or $\frac{1}{4}$

b. 25%

[1] c. 25 shots

a. $\frac{25}{100}$, $\frac{5}{20}$, or $\frac{1}{4}$

b. 25%

[2] c. 8 weeks

Fraction	Decimal	Percent
$\frac{1}{4}$	0.25	25%
$\frac{3}{4}$	0.75	75%
$\frac{3}{5}$	0.60	60%
$\frac{1}{10}$	0.10	10%
$\frac{9}{10}$	0.90	90%
$\frac{6}{6}$	1.00	100%

[3]

a. 0.1875

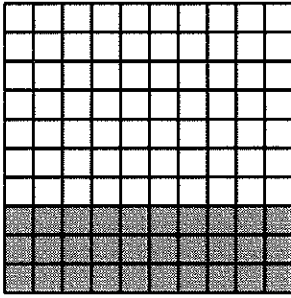
b. 0.25

[4] c. 0.1875

a. 87.5%

b. 43.75%

[5] c. 6.25%



a. $\frac{30}{100}$ or $\frac{3}{10}$

b. 0.30

[6] c. 70%

Perimeter = 10

Number model: $2(3 + 2) = 10$

Area = 6 cm^2

[7] Number model: $(3 \times 2) = 6$

Perimeter = 12 cm

Number model : $2(3 + 3) = 12$

Area = 6 cm^2

[8] Number model : $3 \times 2 = 6$

Perimeter = 9 cm

Number model : $3 + 3 + 3 = 9$

Area = 3 cm^2

[9] Number model : $\frac{1}{2} \times 3 \times 2 = 3$

[10] $3 * (5 + 39) = 132$

[11] $(30 - 18) + 8 = 20$

[12] $(63/9) - 22 = -15$

[13] $4 * (2 + 11 + 21) = 136$

a. \$22

[14] b. \$198

Al's Department Store; Sample Answer: Nx's: $\frac{1}{10} = 10\%$. A 10% discount on \$400 is

[15] \$40. Al's : A 40% discount on \$400 is \$160.

1.23

[16] Number model: $\frac{3}{100} \times 41 = \frac{123}{100} = 1.23$

37.54

[17] Number model: $\frac{22524}{100} \times \frac{1}{6} = \frac{3754}{100} = 37.54$

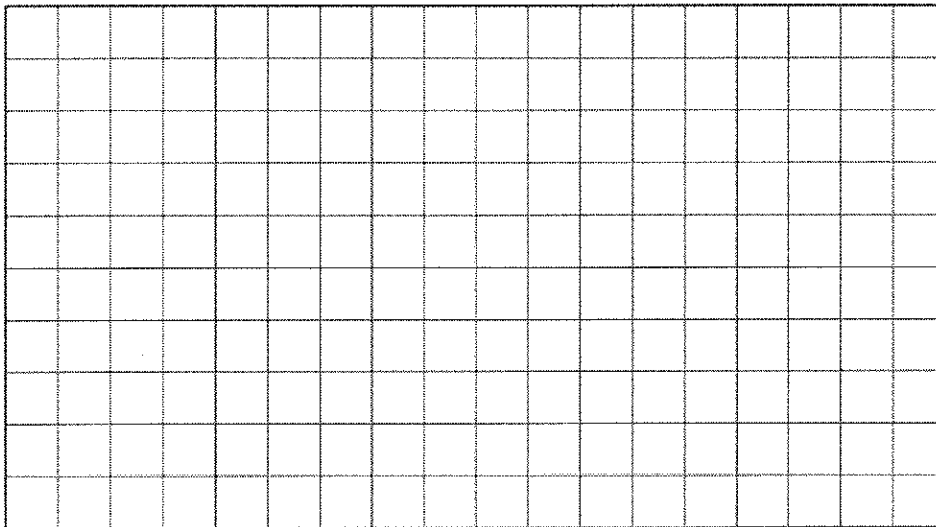
1. Designing a Floor

Mrs. Wyman is tiling her floor in a colorful pattern. She knows what colors she wants to use and what percent of the floor each color will be.

a. Find how many tiles of each color Mrs. Wyman needs. Show and explain your work.

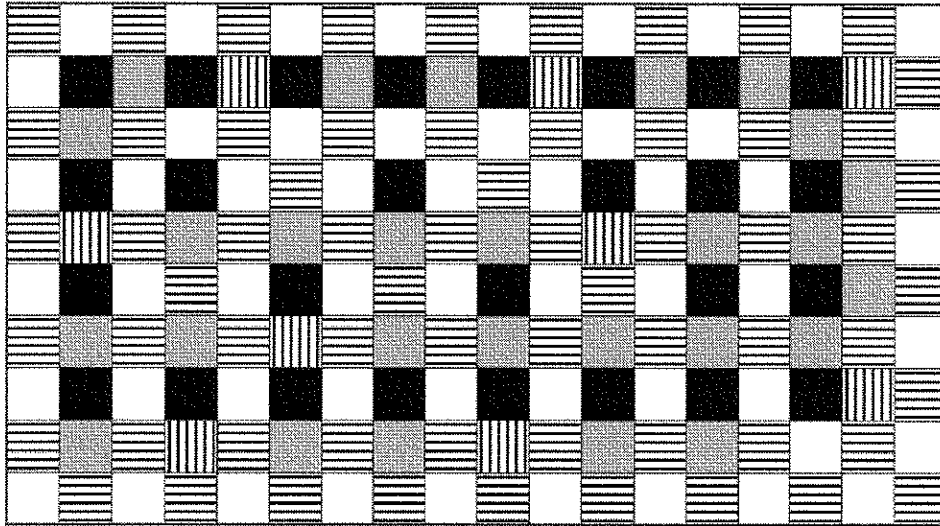
Color	Percent of Tiles	Number of Tiles
Blue	35%	
Red	15%	
Yellow	30%	
Green	5%	
Orange		
Total		180

b. Make a design using Mrs. Wyman's tiles on the grid below.



Sample answer: a. In the table: 63 blue tiles, 27 red tiles, 54 yellow tiles, 9 green tiles, 15% orange, and 27 orange tiles, a total of 100%. Explanation: There should be a total of 100%, so I added up the percents and subtracted the total from 100% to find 15% for the orange tiles. Then I multiplied each percent by the total 180 tiles on my calculator to find the number of tiles for each color. Then I checked to make sure the tiles added up to 180.

b. See design below.



[1] Key:  = red  = orange  = yellow  = blue  = green