Name **Answer Key** # ___ Date_____

UNit 9 Study Guide

1. Gloria made 2 out of 8 shots in the school basketball free-throw contest.
   a. What fraction of the shots did she make? **2/8 or 1/4**
   b. What percent of the shots did she make? **25%**
   c. At this rate, how many shots would she make if she took 100 shots? **25**

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.
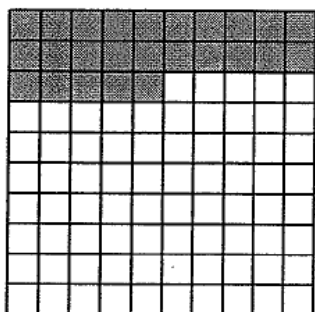
   a. What fraction of 100 miles did he jog in 2 weeks? **25/100**
   b. What percent of 100 miles did he jog? **25%**
   c. At this rate, how many weeks would it take him to jog 100 miles? **8 weeks**

Weeks	Miles
2	25
4	50
6	75
8	100

2 weeks = 25 miles
4 weeks = 50 miles
6 weeks = 75 miles
8 weeks = 100 miles

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

Fraction	Decimal	Percent
$\dfrac{1}{4}$	**0.25**	**25 %**
75/100 or 3/4	0.75	**75%**
6/10	**0.60**	60%
10/100 or 1/10	0.10	**10%**
9/10	**0.90**	90%
$\dfrac{6}{6}$	**1.0**	**100%**

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

a. $\dfrac{3}{16}$ = **0.18$\underline{7}$5 = 0.19**

b. $\dfrac{6}{24}$ = **0.25**

c. $\dfrac{9}{48}$ = **0.18$\underline{7}$5 = 0.19**

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

a. $\dfrac{7}{8}$ = **0.87$\underline{5}$ * 100 = 87.5% or 88%**

b. $\dfrac{14}{32}$ = **0.43$\underline{7}$5 * 100 = 43.$\underline{7}$5% or 44%**

c. $\dfrac{2}{32}$ = **0.06$\underline{2}$5 * 100 = 6.25% or 6%**
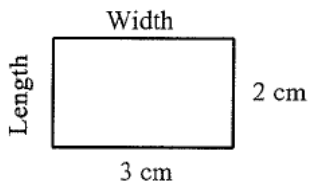
6. Shade 30% of the given square.

or
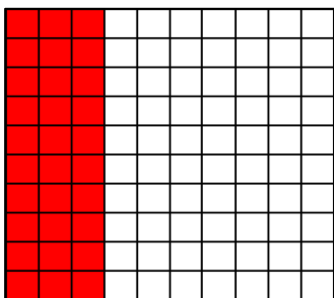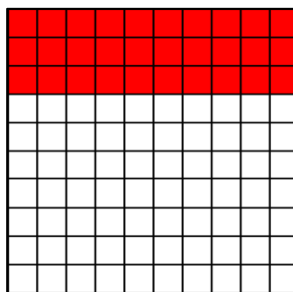
a. What fraction of the square did you shade? **30/100**
b. Write this fraction as a decimal. **0.30**
c. What percent of the square is *not* shaded? **70%**

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

Width
Length
2 cm
3 cm

Perimeter = _____**10**_____ cm

Number model: ___**3 + 3 + 2 + 2 = 10 cm**___

Area = _____**6**_____ cm²

Number model: **3 x 2 = 6 cm²**

Answer Key

Parallelogram   - Area = B x H

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

Perimeter = _____**12**_____ cm

Number model: **3 + 3 + 3 + 3 = 12 cm**

Area = _____**6**_____ cm²

Number model: **3 x 2 = 6 cm²**

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

3 cm

Triangle   - Area = ½ (B x H)

Perimeter = _____**9**_____ cm

Number model: **3 + 3 + 3 = 9 cm**

Area = _____**3**_____ cm²

Number model: **3 x 2 = 6   6 ÷ 2 = 3 cm²**

Make a true sentence by inserting parentheses.

10. $3 * (5 + 39) = 132$

11. $(30 - 18) + 8 = 20$

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

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

$220 x 10% = $22.00 or $220 x 0.10 = $22

14. John bought a jacket that sold for $220. He had a coupon for a 10% discount.
     a. How much money did he save with the discount? **Or 1/10 of $220 = $22.00**
     b. How much money did he pay for the jacket? **$220 - $22 = $198**

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?

Nx's Dept. Store

1/10 of $400 = $40 off

$400 - $40 = $360

Al's Dept. Store

$400 x 40% = $160 off

$400 - $160 = $240

Anita should buy the washing machine from Al's Dept. Store because she would pay $240 compared to $360 at Nx's. She would save $360 - $240= $120 by buying from Al's store.