Topic 5 Study Guide

1. The city of Seattle has 1,242 law enforcement officers in the police department. If the officers are divided into groups of 18, about how many officers will be in each group? Show your work.

2. Which of the following is the best way to estimate 487 ÷ 67 with compatible numbers?
   a. 430 divided by 70
   b. 485 divided by 60
   c. 490 divided by 60
   d. 490 divided by 70

3. The carnival committee has purchased 985 small prizes. If the prizes are to be divided among the 20 game booths, how many prizes will each booth have and how many prizes will be left over? Show your work.

4. Which of the following is another way to think of 27,000 ÷ 30?
   a. 27 tens ÷ 30 tens
   b. 27 tens ÷ 3 tens
   c. 270 tens ÷ 3 tens
   d. 2,700 tens ÷ 3 tens

5. The table shows how many employees are going to a conference. If 27 employees can sit in each row of chairs, how many rows of chairs will they need? Show your work.

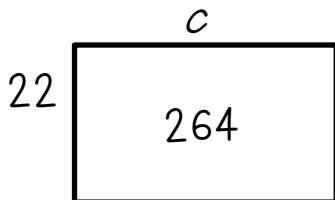| Group	# signed up to attend
Accounting	137
Marketing	146
Central Office	41

6. Shady Rivers summer camp has 188 campers this week. If there are 22 campers in each cabin, what is the <u>least</u> number of cabins needed?

7. Alberto is saving for an item that costs $384. If he saves $30 each week, how long will it take him to buy the item? Show your work.

8. The lengths of two canals are given in the table. *About* how many times as long as the Chesapeake and Delaware Canal is the Eerie Canal? Write <u>and</u> solve an equation to show your estimate.

Ship Canal	Length (in miles)
Chesapeake and Delaware Canal	14
Eerie Canal	363

9. Mrs. Reiss has 264 crayons for her art class of 22 students. How many crayons, c, will each student get if they are divided equally? Use the area model to help.

$$c$$

22 | 264

10. About 300,000 Mexican Free-tailed Bats occupy the caves at Carlsbad Caverns during the summer. Each bat can eat about 800 insects in one hour. What other information is needed to find the number of insects a bat can eat each day?
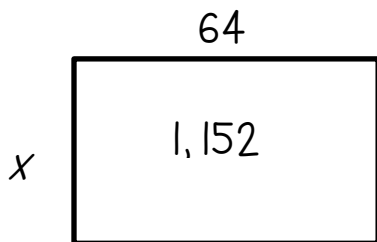
11. A company ordered 384 note pads. If there are 48 notepads in each box, how many boxes were ordered? Show your work.

12. Morning Star Farm purchased 2,400 apple trees. If 80 trees can be planted on each acre of land, how many acres will be needed to plant all the trees? Show your work.

13. The cost to rent a lodge for a reunion is $975. If 65 people attend, and pay the same price, how much will each person pay? Show your work.

14. Write a multiplication equation and a division equation that represent the model shown.

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        64
    ┌─────────────┐
  X │   1,152     │
    │             │
    └─────────────┘
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15. Charles burns 4,350 calories hiking 12 miles of the Appalachian Trail. How many calories does he burn every mile? Estimate first and then find the correct answer.