Math Concepts Problem Set 9　　　　Name_____

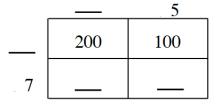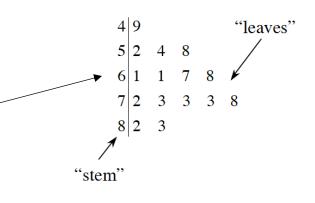Assigned Thursday 11/7, due Friday 11/15

No Work Shown, No Credit Given　　　　　　　　　Period_____

Problems #1-#6 can be completed on this paper. The work for #7-#14 needs to be attached on *a separate piece of paper*.

1. Remember that factors are numbers that multiply to give you a particular product.
a) Find all the factors of 20　　　**b)** Find all the factors of 21.　　　**c)** Find all the factors of 19.

2. Complete the generic rectangle below. *What multiplication problem does it represent and what is the product?*
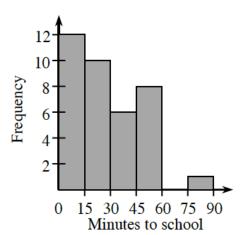
	—	5
	200	100
7	—	—

3. a) List all the numbers from the stem and leaf graph, from least to greatest.
　b) How many numbers are on your list?

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4|9                     "leaves"
5|2  4  8
6|1  1  7  8
7|2  3  3  3  8
8|2  3
```
"stem"

4. Round to the nearest whole number.
a) 4.623　　　**b)** 183.381　　　**c)** 19.89　　　**d)** 0.333　　　**e)** 0.702

5. Round to the nearest tenth.
a) 14.623　　　**b)** 183.381　　　**c)** 19.89　　　**d)** 0.333　　　**e)** 0.702

6. The histogram shows how long it takes students to get to school.
a) How many students take between 30 and 45 minutes?
b) What is the most common interval of time to get to school?
c) How many students are represented on the histogram?

(Histogram: y-axis "Frequency" 2–12; x-axis "Minutes to school" 0 15 30 45 60 75 90)

----------- **Please show your work for #7-#14 on a separate piece of paper.** -------------

7. Show your work!
a) $1.23 + 8 + 9.9$　　　　**b)** $32 - 1.01$　　　　**c)** $94.1 - 3.14$

8. a) 9^3 **b)** 13^2 **c)** 10^7 **d)** 4^4 **e)** 1^6

9. Find the prime factorization for each number: **a)** 150   **b)** 300

10. Create a generic rectangle for each problem. Add the boxes to find the final product.
a) $36 \cdot 72$ **b)** $235 \cdot 14$ **c)** $9(811)$

11. Use the Distributive Property to *rewrite* each of the following products as sums, and then calculate the value, as shown in the example below. Or you can use a generic rectangle.

    Example: $4(307) = 4(300) + 4(7) = 1200 + 28 = 1228$

    a) $9(605)$ **b)** $4(582)$ **c)** $5(6230)$

12. Keylin says that when she ran 115 yards, she went farther than Cres, who only ran 327 feet. Is Keylin correct? *Explain* how you know. Remember that 1 yard $= 3$ feet.

13. Stacy exercises three days each week by walking around the soccer field near her home. The field is 80 yards wide and 115 yards long.
a) *Draw* a diagram of the field. Then find how far Stacy walks in one trip around the field. This distance is called the **perimeter**.
b) If Stacy walks around the field four times each time she exercises, how far does she walk each week? *Show your work.*

14. Find the area of each figure.

a) 7 cm   8 cm

b)

c) 5 in.   5 in.   4 in.   5 in.   13 in.