Oak Grove
Math Superstars

Due Dates:

Session	Last Monday of
1	September
2	October
3	November
4	January
5	February
6	March

Grade 5

Session 1 - Answers

(50 points total; 10 points deducted if late)

Problem 1 (18pts):

Grader: 2 points per correct number.

Study the clues and then enter the numbers 1-9 in their correct boxes. Every number should appear exactly once.

a) The number 1 is next to and directly left of the 9.
b) The 9 is next to and directly above the 6.
c) The 6 is further right than the 4.
d) The 4 is next to and directly right of the 8.
e) The 8 is next to and directly above the 2.
f) The 2 is next to and directly left of the 5.
g) The 5 is not next to the 7.

(Hint: use each clue to eliminate certain numbers as a possibility. For example, from clue a) you can eliminate 9 from the left column and 1 from the right column. One possible approach is that you should be able to eliminate all but two possible locations for the number 4. Try both possibilities to see which one works.)

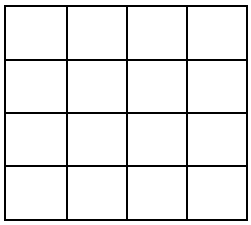
1,2,3,4,5,6,7,8,9 **7**	1,2,3,4,5,6,7,8,9 **1**	1,2,3,4,5,6,7,8,9 **9**
1,2,3,4,5,6,7,8,9 **8**	1,2,3,4,5,6,7,8,9 **4**	1,2,3,4,5,6,7,8,9 **6**

1,2,3,4,5,6,7,8,9 **2**	1,2,3,4,5,6,7,8,9 **5**	1,2,3,4,5,6,7,8,9 **3**

Problem 2 (10pts):

Grader: 4 pt if answer<20, 7pts if answer between 20 and 29 or above 30. 10pts if answer 30.

How many squares can be found in the following figure?



16 – individual squares
9 – 2x2 squares (1 at each corner, 1 in middle, 4 total in middle rows/columns)
4 – 3x3 squares (1 at each corner)
1 – 4x4 square

30 total squares

Answer:____**30**_____

Problem 3 (10pts):

Grader: 2 pts per correct digit.

Assign one digit from the following set {0, 1, 2, 2, 4} in each box below to get the correct division problem:

$$\begin{array}{r} 5\ 0\ 3 \\ \hline 4 \,\big|\, 2\ 0\ 1\ 2 \end{array}$$

Problem 4 (12pts):

Grader: 4 pts per correct answer.

The sum of my two digits is 14. I am not even. List the three possible numbers I could be.

Answers: **59** **77** **95**