Quarter Chart Number Study
The Quartered 10 x 10 Grid

Objectives: Develop number sense in the following areas – place value, rounding, whole numbers, addition, subtraction, multiplication, fractions, money, decimals, area, perimeter.

This is an ongoing activity that promotes number sense in a variety of areas and students should practice this throughout the year, possibly once a week.

To begin, show the students a blank quartered grid and have them name everything they see. Possible responses: 100 little squares, a big square divided into 100 squares, 4 medium squares with 25 little squares, 10 rows, 10 columns, etc.

Next, show a transparency of the shaded grid (you may choose your own number to shade) Ask the students to write down as many different things they see on this grid. Then, list the student responses. Use different shadings each time you present this concept.

You may elicit other responses by announcing something you see. When studying other concepts you may ask if anyone sees a fraction, decimal, money, area, etc.

Possible student responses for various concepts are given on the next page.

Possible responses:

Number -
66 shaded squares
34 unshaded squares
6 tens and 6 ones
5 tens and 16 ones
4 tens and 26 ones
10 fives and 16 ones
12 fives and 6 ones
2 twenty fives and 6 ones

Addition/Subtraction
66 + 34 = 100
100 – 34 = 66
100 – 66 = 34
90 – 66= 24

Fractions
66/100
½ + 16/100
¼ + ¼ + 1/10 + 6/100

Rounding
66 rounds to 70
34 rounds to 30
0.66 rounds to 0.7
0.34 rounds to 0.3

Money
2 quarters, 3 nickels, and 1 penny
2 quarters, 1 dime, 1 nickel, and 1 penny
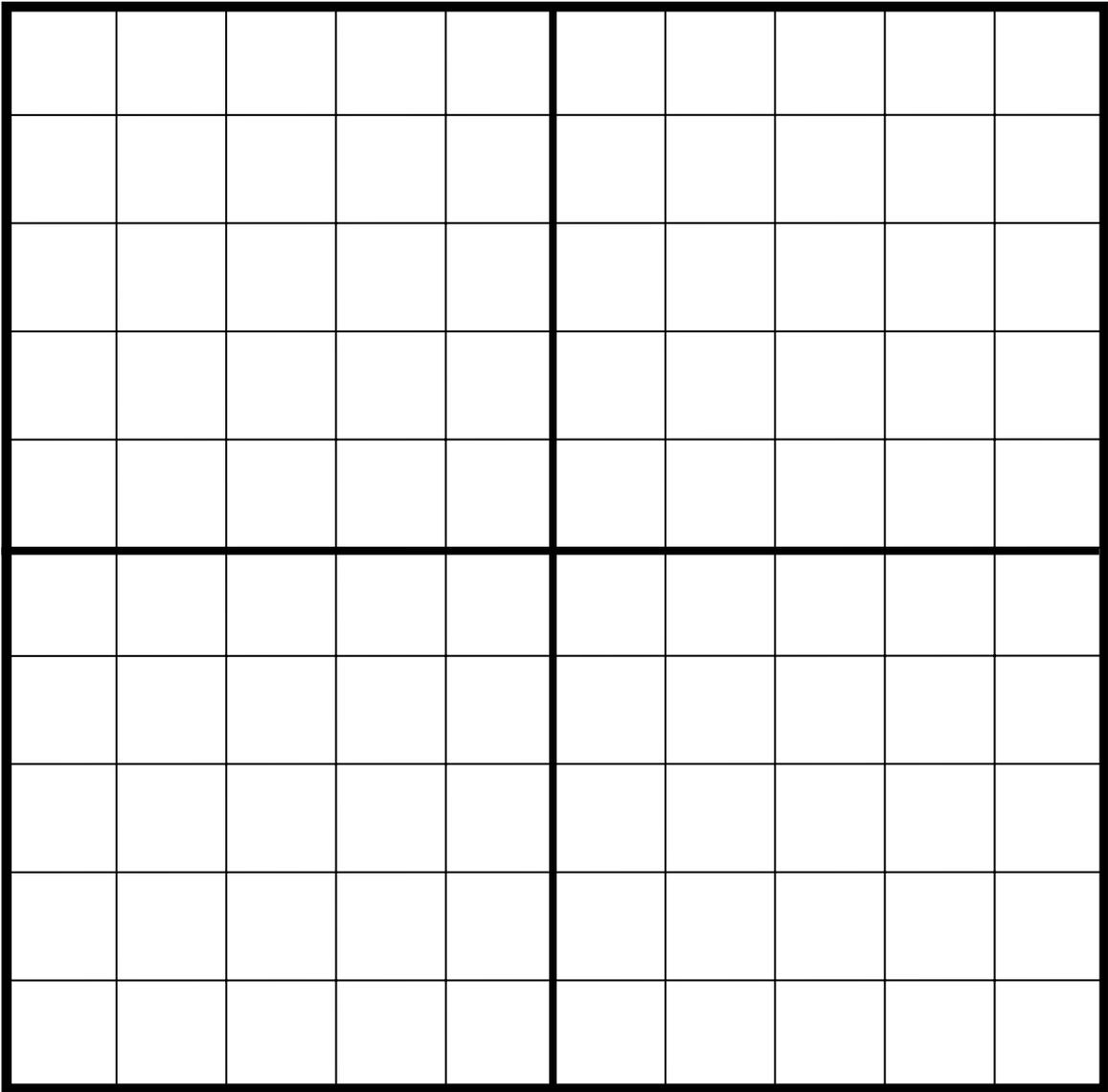10 nickels, 1 dimes, and 6 pennies

Decimals
0.66 shaded
0.34 unshaded
0.66 + 0.34 = 1
1 – 0.34 = 0.66
6 tenths and 6 hundredths
5 tenths and 16 hundredths

Multiplication
Two 25's and 16 ones   (2 x 25) + 16
6 tens and 6 ones   (6 x 10) + (6 x 1)
13 fives and 1 one   (13 x 5) + 1

Quartered 10 X 10 Grid

Shaded Grid