Lesson 45

Course 2-Teacher Notes
Objective: TSW divide by a decimal number.

In this lesson we will learn how to divide by a decimal number.

To divide by a decimal number
1. Move the decimal in the divisor all the way to the <u>right</u>. (So it is against the dog house)
2. Move the decimal in the dividend to the right the <u>same</u> number of places you moved it in step 1.

The goal is to get the divisor to become a <u>whole number.</u>

Example 1.
Divide: $3.35 \div 0.05$
Question: What number goes in the dog house? The first one (3.35)

Now we divide and find that 3.35 ÷ 0.05 = **67.**

```
     67.
5)335.
  30
   35
   35
    0
```

***By moving the decimal in <u>BOTH</u> the divisor and dividend the same number of place to the right <u>does NOT</u> change the value of the problem.

Example 2.
Divide $0.144 \div 0.8$

```
     0.18
08.)1.44
    8
     64
     64
      0
```

Example 3.
Solve: $0.07x = 5.6$

```
      80.
007.)560.
     56
      00
       0
       0
```

Example 4
Divide: $21 \div 0.5$

```
      42.
05.)210.
    20
     10
     10
      0
```

Example 5.
Divide: $1.54 \div 0.8$

```
      1.925
08.)15.400
    8
     7 4
     7 2
       20
       16
        40
        40
         0
```

Question: How many zeros will I need to add in the dividend? Until there is a terminating decimal or repeating decimal.

Example 6.
How many 0.35 erasers can be purchased with $7.00?

```
      20.
035.)700.
     70
      00
       0
       0
```

20 erasers.

Check your work:
.35 x 20 = $7.00

You Try!!!

$5.16 \div 0.6$ 8.6

Why are these division problems equivalent?

$$\frac{0.25}{0.5} = \frac{2.5}{5}$$

CW: 18, 24, 29, 13, 9, 14 (start at 1 and move forward)
HW: