NS7-53 Dividing Decimals by Whole Numbers

You can divide a decimal by a whole number by making a base ten model. Here is what the blocks represent:



= 1 one or unit



= 1 hundredth

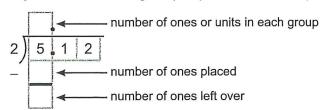
Keep track of your work using long division.

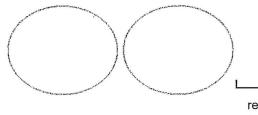
1. Find 5.12 ÷ 2 by making a base ten model and by long division.

Step 1: Draw a base ten model for 5.12.

Draw your model here.

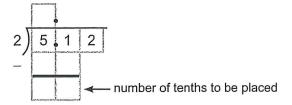
Step 2: Divide the largest (unit) blocks into 2 equal groups.

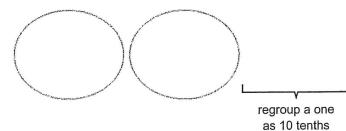




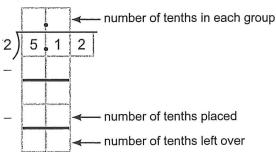
remaining ones, tenths, and hundredths

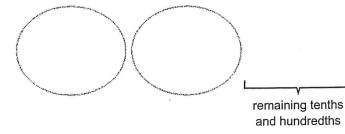
Step 3: Exchange the leftover unit blocks for 10 tenths.





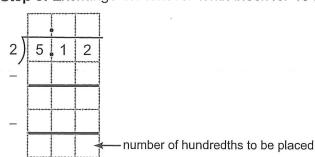
Step 4: Divide the tenths blocks into 2 equal groups.

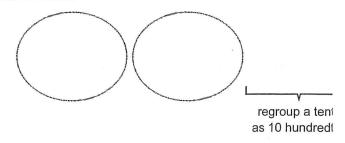




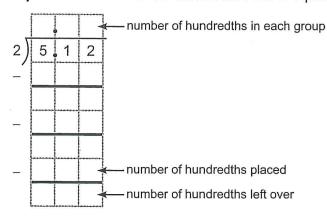
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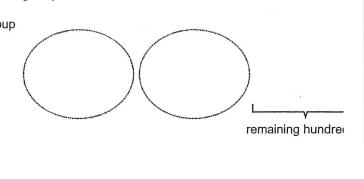
Step 5: Exchange the leftover tenth block for 10 hundredths.



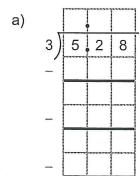


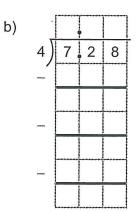
Steps 6 and 7: Divide the hundredths into 2 equal groups.

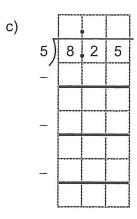


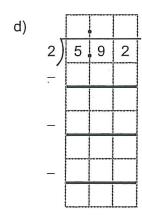


2. Divide.









3. Divide.

- a) 8)2.56
- b) $7\overline{)5.6}$
- c) 8)4.48
- d) 9)6.21
- e) 5)32.45

4. Five oranges cost \$3.65. How much does each orange cost?

5. An equilateral triangle has a perimeter of 3.12 m. How long is each side?

6 Philip cycled 58.4 km in 4 hours. How many kilometres did he cycle in an hour?

7 Ahmed earned \$97.36 in 8 hours. How much did he earn each hour?

8. Which is a better deal, 8 pens for \$6.16 or 7 pens for \$5.46?