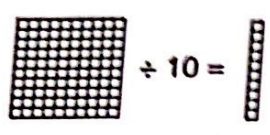
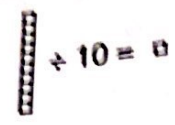


NS5-96: Dividing Decimals by 10



Divide 1 whole into 10 equal parts.
Each part is 1 tenth:
 $1.0 \div 10 = 0.1$



Divide 1 tenth into 10 equal parts.
Each part is 1 hundredth:
 $0.1 \div 10 = 0.01$

When you divide a decimal by 10, the decimal shifts one place to the left:

$0.7 \div 10 = .07$
 $7.0 \div 10 = .7$

1. Complete the picture and write a division statement for each picture.

a) $\div 10 =$
 $2.0 \div 10 = .2$

b) $\div 10 =$ _____
 _____ = _____

c) $\div 10 =$
 $.3 \div 10 =$ _____

d) $\div 10 =$ _____
 _____ = _____

e) $\div 10 =$ _____
 _____ = _____

2. Complete the picture and write a division statement (the first one is done for you).

a) $\div 10 =$
 $2.3 \div 10 = .23$

b) $\div 10 =$ _____
 _____ = _____

3. Shift the decimal one place to the left by drawing an arrow. (If there is no decimal, add one.)

- a) $0.3 \div 10 = .03$ b) $0.5 \div 10 =$ _____ c) $0.7 \div 10 =$ _____ d) $1.3 \div 10 =$ _____
 e) $7.6 \div 10 =$ _____ f) $12.0 \div 10 =$ _____ g) $9 \div 10 =$ _____ h) $6 \div 10 =$ _____
 i) $42 \div 10 =$ _____ j) $17 \div 10 =$ _____ k) $.9 \div 10 =$ _____ l) $27.3 \div 10 =$ _____

4. Change the following measurements by dividing by 10.

- a) 5 cm = _____ dm b) 1.7 cm = _____ dm c) 3.5 mm = _____ cm d) 2mm = _____ cm

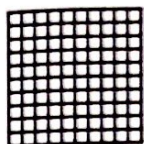
5. Sarah has 2.7 m of ribbon. She wants to cut the ribbon into 10 equal lengths. How long will each piece be (in metres)?



6. A swimming pool is 25 m wide. It is divided into 10 lanes. How wide is each lane (in metres)?

NS5-97: Dividing Decimals by Whole Numbers

You can divide a decimal by a whole number using base ten blocks. Keep track of your work using long division. Use the hundreds block to represent 1 whole, the tens block to represent 1 tenth and a ones block to represent 1 hundredth.



1 whole



1 tenth

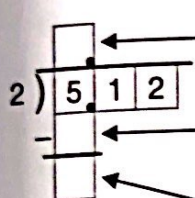
□ 1 hundredth

1. Find $5.12 \div 2$ by drawing a base ten model and by long division.

Step 1: Draw a base ten model of 5.12.

Draw your model here.

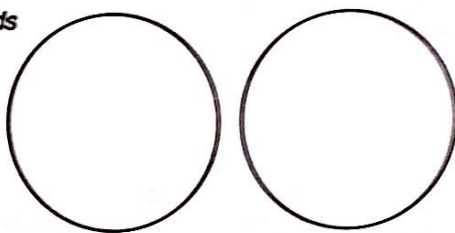
Step 2: Divide the ones (hundreds blocks) into 2 equal groups.



number of ones (hundreds blocks) or units in each group

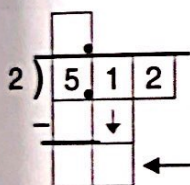
number of ones placed

number of ones left over

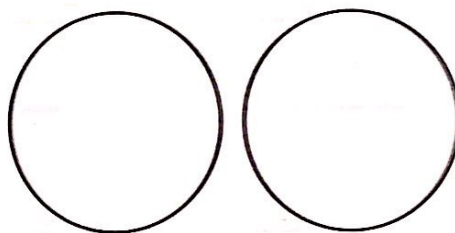


remaining ones, tenths and hundredths

Step 3: Exchange the left over one (hundreds blocks) for 10 tenths (tens blocks).

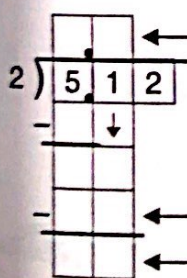


number of tenths to be placed



regroup a whole for 10 tenths
REMEMBER: A whole is represented by a hundreds block

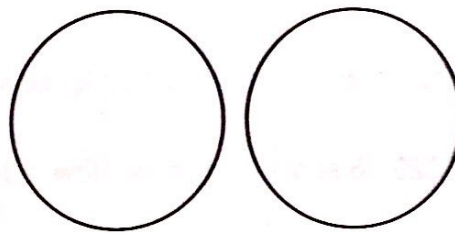
Step 4: Divide the tenths blocks into 2 equal groups.



number of tenths in each group

number of tenths placed

number of tenths left over



remaining tenths and hundredths

NS5-97: Dividing Decimals by Whole Numbers (continued)

Step 5: Regroup the leftover tenths (tens blocks) as 10 hundredths (ones blocks).

2	)	5	1	2
-			↓	
-				↓
-				
-				
-				
-				
-				

← number of hundredths to be placed

exchange a tenth for 10 hundredths

Step 6 and 7: Divide the hundredths (ones blocks) into 2 equal groups.

2	)	5	1	2
-			↓	
-				↓
-				
-				
-				
-				
-				

← number of hundredths in each group

← number of hundredths placed

← number of hundredths left over

remaining hundredths

2. Divide.

a)

3	)	4	3	2
-				
-				
-				
-				
-				
-				
-				

b)

4	)	6	2	5
-				
-				
-				
-				
-				
-				
-				

c)

5	)	6	2	3
-				
-				
-				
-				
-				
-				
-				

d)

2	)	3	3	2
-				
-				
-				
-				
-				
-				
-				

3. Divide. a) $8 \overline{) 1.44}$ b) $7 \overline{) 9.4}$ c) $8 \overline{) 2.72}$ d) $9 \overline{) 6.13}$ e) $5 \overline{) 20.5}$

4. Five apples cost \$2.75. How much does each apple cost?

5. Karen cycled 62.4 km in 4 hours. How many kilometres did she cycle in an hour?

6. Four friends earn a total of \$29.16 shovelling snow. How much does each friend earn?

7. Which is a better deal: 6 pens for \$4.98 or 8 pens for \$6.96?

