2.6 DIVIDING DECIMALS

ESSENTIAL QUESTION:

How do you divide decimals?

EXAMPLE 1

Divide.

1) 7.6 ÷ 4

$$4\overline{)7.6} = 1.9$$

-4

36

-36

0

2) 4.38 ÷ 12

$$12\overline{)4.380} = .365$$

36

78

-72

60

-60

0

ON YOUR OWN

Divide.

1) 36.4 ÷ 2

$$2\overline{)36.4} = 18.2$$

-2

16

-16

04

-4

0

2) 22.2 ÷ 6

$$6\overline{)22.2} = 3.7$$

18

42

-42

0

3) 59.64 ÷ 7

$$7\overline{)59.64} = 8.52$$

-56

36

-35

14

-14

0

4) 43.26 ÷ 14

$$14\overline{)43.26} = 3.09$$

-42

12

-0

126

-126

0

5) 6.2 ÷ 4

$$4\overline{)6.20} = 1.55$$

-4

22

-20

20

-20

0

6) 3.12 ÷ 16

$$16\overline{)3.120} = .195$$

16

152

144

80

80

Dividing Decimals by Whole Numbers

1) Place the decimal point in the quotient above the decimal point in the dividend.

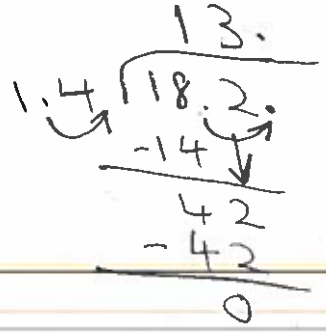
2) Then divide as you would with whole numbers.

3) If there is a remainder write zeros in the dividend as needed and divide until there is no remainder.

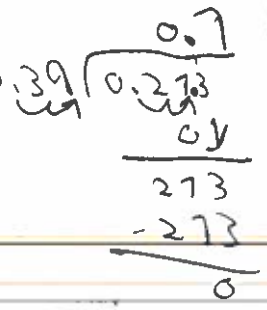
EXAMPLE 2

Divide.

1) 18.2 ÷ 1.4



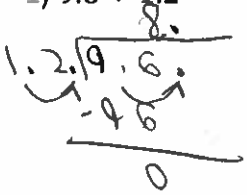
2) 0.273 ÷ 0.39



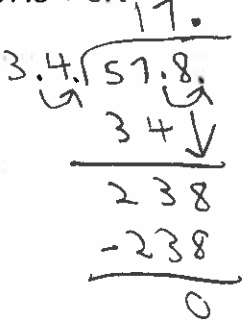
ON YOUR OWN

Divide.

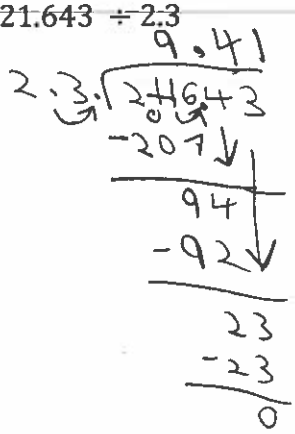
1) 9.6 ÷ 1.2



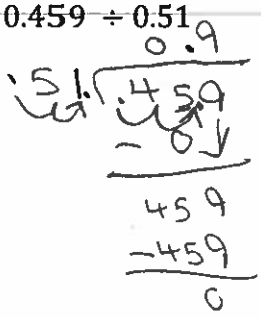
2) 57.8 ÷ 3.4



3) 21.643 ÷ 2.3

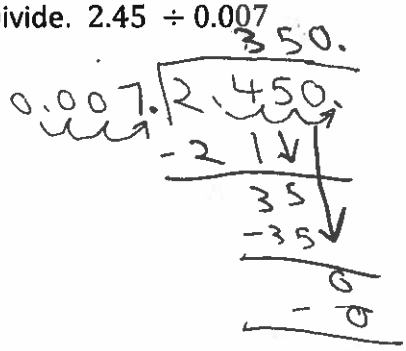


4) 0.459 ÷ 0.51



EXAMPLE 3

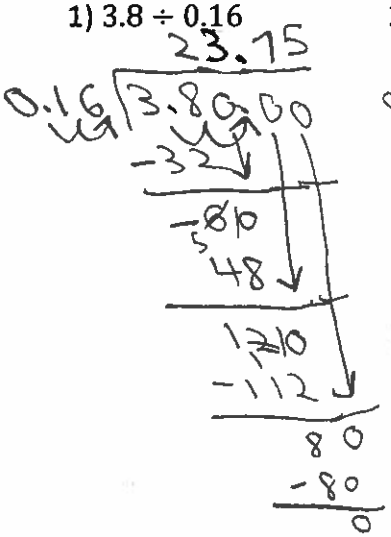
Divide. 2.45 ÷ 0.007



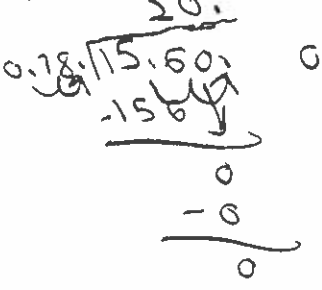
ON YOUR OWN

Divide.

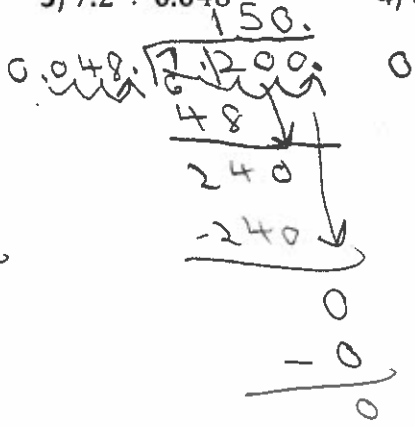
1) 3.8 ÷ 0.16



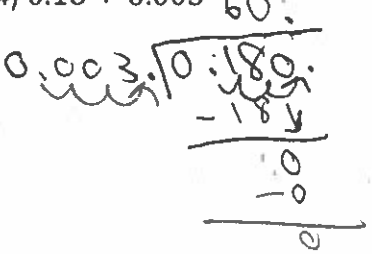
2) 15.6 ÷ 0.78



3) 7.2 ÷ 0.048



4) 0.18 ÷ 0.003



Divide Decimals by Decimals

1)In the divisor move decimal to the right to get a whole number.

2)Move decimal in dividend same number of place values you moved decimal in divisor.

3)Then place the decimal point in the quotient above the decimal point in the dividend and divide as you would with whole numbers.

4)If there is a remainder write zeros in the dividend as needed and divide until there is no remainder.

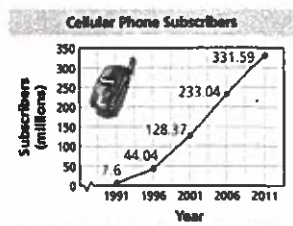
EXAMPLE 4

Cookies for a school fundraiser cost $3.75 per box. The total amount received from the cookie sale is $2718.75. How many boxes of cookies were sold?

```
        725
3.75. ) 2718.75.
       -2625
        937
        750
        1875
       -1875
```

725 boxes of cookies were sold.

How many times more cellular phone subscribers were there in 2011 than in 1991? Round to the nearest whole number.




```
        43.6
7.6. ) 3211.5.9
       304
        2715
        228
        479
        456
         23
```

There were about 44 times more subscribers in 2011 than in 1991.

Ev~~aluate the expression~~.

1) 1~~2.67 + 8.2 − 1.9~~

~~2) 6.4 (1.8 − 7.5)~~