Cosmo School

Class-5

Chapter-7

Decimal Fractions

Lecture sheet – 4

Division by Integer:

❖ Divide 5 ÷ 8 vertically

```
      0.
  8) 5
     0
```

→

```
      0.6
  8)  5.0
      0
      5 0
      4 8
        2
```

→ **Add 0 to continue division!**

```
      0.62
  8)  5.00
      0
      5 0
      4 8
        20
        16
         4
```

→ **Add 0 to continue division!**

```
      0.625
  8)  5.000
      0
      5 0
      4 8
        20
        16
         40
         40
          0
```

→ **Add 0 to continue division!**

Division by 2-digit numbers:

❖ Divide 98.7 ÷ 21 vertically.

No matter how many digits there are, we can calculate it as in integers

➡

```
      4.
21)98.7
   84
```

➡

```
      4.7
21)98.7
   84
   ─────
   14 7
   14 7
   ─────
      0
```

⬇

Put a decimal point at the same place of quotient as in the dividend
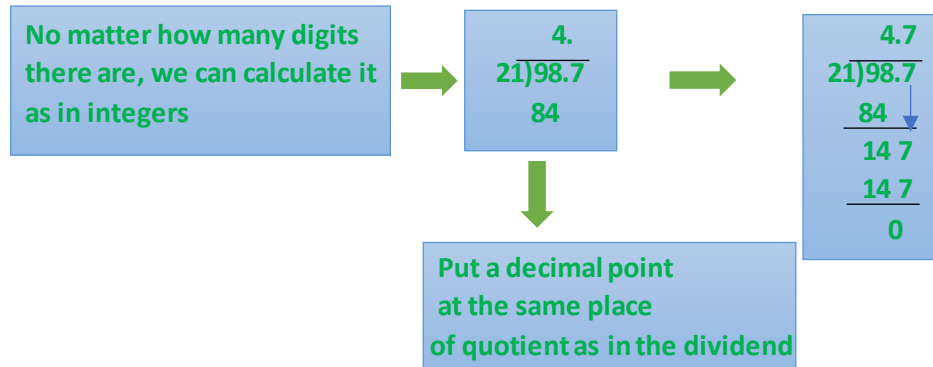
❖ Divide 59.76 ÷ 48 vertically.

```
       1.
48) 59.76
    48
    ─────
    11
```

➡

```
       1.2
48) 59.76
    48
    ─────
    11 7
     9 6
    ─────
     2 1
```

➡

```
       1.24
48) 59.76
    48
    ─────
    11 7
     9 6
    ─────
     2 16
     1 92
    ─────
       24
```

➡

```
       1.245
48) 59.760
    48
    ─────
    11 7
     9 6
    ─────
     2 16
     1 92
    ─────
       240
       240
    ─────
         0
```

➡

Add 0 to Continue division
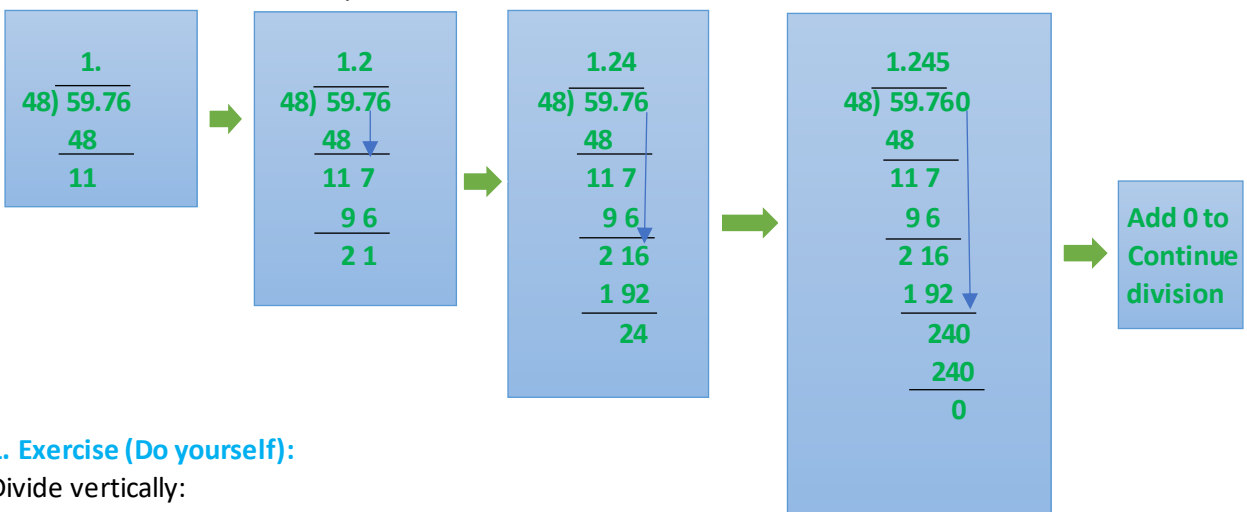
1. Exercise (Do yourself):

Divide vertically:

1. 16) 10
2. 32) 24
3. 72) 1.8
4. 25) 26.5
5. 25) 32.1
6. 12) 16.2
7. 23) 59.8
8. 38) 64.6
9. 12) 4.8
10. 43) 9.46
11. 36) 2.88
12. 24) 2.16

Division by 10 and 100

      * 34.2 ÷ 10   * 34.2 ÷ 100

```
        3.42              0.342
10) 34.20          10) 34.200
    30                 30 0
     4 2                4 20
     4 0                4 00
      20                 200
      20                 200
       0                   0
```

- When dividing by 10 and 100, the decimal point moves to left as many as the number of 0 s.
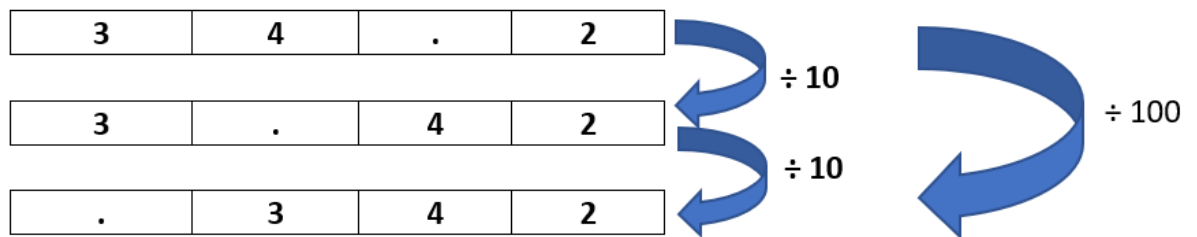
- 34.2 ÷ 1000 =?
- There are three zeros in 1000, so the decimal point moves three digits left.
  34.2 ÷ 1000 = 0.0342

- 4 ÷ 10 =?
- There are one zero in 10, so the decimal point moves one digits left.
  4 ÷ 10 = 0.4

- 4.0 ÷ 100 =?
- There are two zeros in 100, so the decimal point moves two digits left.
  4.0 ÷ 100 = 0.04

2.Exercise (Do yourself):

1. $2.8 \div 10$
2. $2.8 \div 100$
3. $20.3 \div 10$
4. $20.3 \div 100$
5. $24 \div 100$
6. $9 \div 10$
7. $0.3 \div 100$
8. $6.3 \div 10$
9. $8.7 \div 100$
10. $2.45 \div 10$
11. $36.4 \div 100$
12. $24.3 \div 100$

Solution

1.

1) 0.625 , 2) 0.75 , 3) 0.025 , 4) 1.06 , 5) 1.285 , 6) 1.35 , 7) 2.6 , 8) 1.7 , 9) 0.4 , 10) 0.22
11) 0.08 , 12) 0.09

2.

1) 0.28 , 2) 0.028 , 3) 2.03 , 4) 0.203 , 5) 0.24 , 6) 0.9 , 7) 0.003 , 8) 0.63 , 9) 0.087 , 10) 0.245 ,
11) 0.364 , 12) 0.243