EXERCISE 4A

1. Convert the following into fractions in their lowest terms:
(i) 3.75
(ii) 0.5
(iii) 2.04
(iv) 0.65
(v) 2.405
(vi) 0.085
(vii) 8.025
Solution:

(i) 3.75
We can write it as
= 375/ 100
Here the HCF of 375 and 100 is 25
= (375 ÷ 25)/ (100 ÷ 25)
So we get
= 15/4

(ii) 0.5
We can write it as
= 5/10
= 1/2

(iii) 2.04
We can write it as
= 204/100
Here the HCF of 204 and 100 is 4
= (204 ÷ 4)/ (100 ÷ 4)
So we get
= 51/25

(iv) 0.65
We can write it as
= 65/100
Here the HCF of 65 and 100 is 5
= (65 ÷ 5)/ (100 ÷ 5)
So we get
= 13/20

(v) 2.405
We can write it as
= 2405/1000
Here the HCF of 2405 and 1000 is 5
= (2405 ÷ 5)/ (1000 ÷ 5)
So we get
= 481/200

(vi) 0.085

We can write it as
= 85/1000
Here the HCF of 85 and 1000 is 5
= (85 ÷ 5)/ (1000 ÷ 5)
So we get
= 17/200

(vii) 8.025
We can write it as
= 8025/1000
Here the HCF of 8025 and 1000 is 25
= (8025 ÷ 25)/ (1000 ÷ 25)
So we get
= 321/ 40

2. Convert into decimal fractions:
(i) 2 4/5
(ii) 79/100
(iii) 37/10,000
(iv) 7543/10⁴
(v) 3/4
(vi) 9 3/5
(vii) 8 5/8
(viii) 5 7/8
Solution:

(i) 2 4/5
We can write it as
= 14/5 × 2/2
So we get
= 28/10
= 2.8

(ii) 79/100
We can write it as
= 79/100
= 0.79

(iii) 37/10,000
We can write it as
= 37/10,000
= 0.0037

(iv) 7543/10⁴
We can write it as
= 7543/10000
= 0.7543

(v) 3/4

```
       0.75
   4 │  3
   ───────
      28
   ───────
      20
   ───────
      20
   ───────
       0
```

By division we get
= 0.75

(vi) 9 3/5
We can write it as
= 48/5
By division

```
       9.6
   5 │  48
   ───────
      45
   ───────
      30
   ───────
      30
   ───────
       0
```

So we get
= 9.6

(vii) 8 5/8

```
       0.625
   8 │  5
   ───────
      48
   ───────
      20
   ───────
      16
   ───────
      40
   ───────
      40
   ───────
       0
```

By division we get
= 8.625

(viii) 5 7/8

```
        0.875
   ┌─────────
 8 │   7
       64
   ─────────
       60
       56
   ─────────
       40
       40
   ─────────
        0
   ─────────
```

By division we get
= 5.875

3. Write the number of decimal places in:
(i) 0.4762
(ii) 7.00349
(iii) 8235.403
(iv) 35.4
(v) 2.608
(vi) 0.000879
Solution:

(i) 0.4762
There are four decimal places.

(ii) 7.00349
There are five decimal places.

(iii) 8235.403
There are three decimal places.

(iv) 35.4
There is one decimal place.

(v) 2.608
There are three decimal places.

(vi) 0.000879
There are six decimal places.

4. Write the following decimals as word statements:
(i) 0.4, 0.9, 0.1
(ii) 1.9, 4.4, 7.5
(iii) 0.02, 0.56, 13.06
(iv) 0.005, 0.207, 111.519
(v) 0.8, 0.08, 0.008, 0.0008
(vi) 256.1, 10.22, 0.634
Solution:

(i) 0.4 = zero-point-four
0.9 = zero-point-nine
0.1 = zero-point-one

(ii) 1.9 = one-point-nine
4.4 = four-point-four
7.5 = seven-point-five

(iii) 0.02 = zero-point-zero-two
0.56 = zero-point-five-six
13.06 = thirteen-point-zero-six

(iv) 0.005 = zero-point-zero-zero-five
0.207 = zero-point-two-zero-seven
111.519 = one hundred eleven-point-five-one-nine

(v) 0.8 = zero-point-eight
0.08 = zero-point-zero-eight
0.008 = zero-point-zero-zero-eight
0.0008 = zero-point-zero-zero-zero-eight

(vi) 256.1 = two hundred fifty six-point-one
10.22 = ten-point-two-two
0.634 = zero-point-six-three-four

5. Convert the given fractions into like fractions:
(i) 0.5, 3.62, 43.981 and 232.0037
(ii) 215.78, 33.0006, 530.3 and 0.03569
Solution:

(i) 0.5, 3.62, 43.981 and 232.0037
The greatest decimal places is 4
So we get
0.5 = 0.5000
3.62 = 3.6200
43.981 = 43.9810
232.0037 = 232.0037

(ii) 215.78, 33.0006, 530.3 and 0.03569
The greatest decimal places is 5
215.78 = 215.78000
33.0006 = 33.00060
530.3 = 530.30000
0.03569 = 0.03569