Fractions and Decimal Fractions

½ and ¼ are examples of **fractions**.
0.6 and 0.23 are examples of **decimals** (or decimal fractions).
There is a relationship between fractions and decimal fractions.

½ means 1 **divided** by 2. The line stands for divided by. Try typing 1 ÷ 2 on your calculator. What appears on the screen? You should see 0.5 on your screen. That is how a calculator shows ½ because ½ is 1÷2. *[Check: We know that two halves make a whole, i.e. ½ + ½ = 1. What does 0.5 + 0.5 equal?]*

Section A
Find out what each of these fractions is as a decimal.

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{4}$

Section B
½ is 0.5 so 8.5 is 8½ (eight and a half). Write down what each of these decimals stands for.

1) 7.5   **6)** 19.75
2) 3.5   **7)** 20.25
3) 1.25   **8)** 203.5
4) 5.75   **9)** 34.75
5) 6.5   **10)**   18.5

Section C
14 ¾ (fourteen and three quarters) is 14.75. Write down what each of these stands for.

1) 12 ½   **6)** 104 ¼
2) 18 ¾   **7)** 2465 ½
3) 8 ¼   **8)** 349 ¾
4) 10 ½   **9)** 5 ½
5) 20 ¾   **10)**   102 ½

Section D
Find out what each of these fractions is as a decimal.

$\frac{1}{10}$	$\frac{2}{10}$	$\frac{3}{10}$	$\frac{4}{10}$	$\frac{5}{10}$
$\frac{6}{10}$	$\frac{7}{10}$	$\frac{8}{10}$	$\frac{9}{10}$	$\frac{10}{10}$

Section E

If 8.1 stands for $8\frac{1}{10}$. Write down what each of these decimals stands for.

1) 7.2   **6)** 18.7

2) 3.8   **7)** 9.8

3) 9.1   **8)** 5.3

4) 10.1   **9)** 8.4

5) 11.6   **10)**   19.5

Section F

Use your calculator to work out what each of these fractions are as decimals. Can you see any pattern in each family of fractions?

$\frac{1}{3}$	$\frac{2}{3}$	$\frac{3}{3}$

$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{5}{5}$

$\frac{1}{6}$	$\frac{2}{6}$	$\frac{3}{6}$	$\frac{4}{6}$	$\frac{5}{6}$	$\frac{6}{6}$

$\frac{1}{7}$	$\frac{2}{7}$	$\frac{3}{7}$	$\frac{4}{7}$	$\frac{5}{7}$	$\frac{6}{7}$	$\frac{7}{7}$

$\frac{1}{8}$	$\frac{2}{8}$	$\frac{3}{8}$	$\frac{4}{8}$	$\frac{5}{8}$	$\frac{6}{8}$	$\frac{7}{8}$	$\frac{8}{8}$

$\frac{1}{9}$	$\frac{2}{9}$	$\frac{3}{9}$	$\frac{4}{9}$	$\frac{5}{9}$	$\frac{6}{9}$	$\frac{7}{9}$	$\frac{8}{9}$	$\frac{9}{9}$