

NUMBERS AND THE NUMBER SYSTEM

Pupils should be taught to:

Round decimal fractions to the nearest whole number or the nearest tenth

Recognise the equivalence between decimals and fractions

As outcomes, Year 4 pupils should, for example:

Know that, for example:

0.5 is equivalent to $\frac{1}{2}$;

0.25 is equivalent to $\frac{1}{4}$;

0.75 is equivalent to $\frac{3}{4}$;

0.1 is equivalent to $\frac{1}{10}$;

particularly in the context of money and measurement.

As outcomes, Year 5 pupils should, for example:

Round decimals with one decimal place to the nearest whole number. For example:

- Round these to the nearest whole number:
9.7 25.6 148.3
- Round these lengths to the nearest metre:
1.5 m 6.7 m 4.1 m 8.9 m
- Round these costs to the nearest £:
£4.27 £12.60 £14.05 £6.50

See also rounding up or down after division (page 57).

Recognise that, for example:

0.07 is equivalent to $\frac{7}{100}$;
6.35 is equivalent to $6\frac{35}{100}$;

particularly in the context of money and measurement.

Respond to questions such as:

- Which of these decimals is equal to $\frac{19}{100}$?
1.9 10.19 0.19 19.1
- Write each of these as a decimal fraction:
 $\frac{27}{100}$ $\frac{3}{100}$ $2\frac{33}{100}$

Enter fractions into a calculator and interpret the display to find the equivalent decimal.

Predict the result before confirming.

For example:

$\frac{1}{2}$	one half	0.5
$\frac{1}{4}$	one quarter	0.25
$\frac{3}{4}$	three quarters	0.75
$\frac{1}{10}$	one tenth	0.1
$\frac{1}{5}$	one fifth or two tenths	0.2
$\frac{1}{100}$	one hundredth	0.01
$\frac{75}{100}$	75 hundredths or three quarters	0.75
$\frac{3}{100}$	three hundredths	0.03
$\frac{50}{100}$	fifty hundredths or one half	0.5

Appreciate that a number like 3.6 in a calculator display means £3.60 in the context of money, and that 67p is entered as 0.67 since it is $\frac{67}{100}$ of £1.

As outcomes, Year 6 pupils should, for example:

Round decimals with one or two decimal places to the nearest whole number. For example:

- Round these to the nearest whole number:
19.7 25.68 148.39

Round decimals with two or more decimal places to the nearest tenth. For example:

- What is 5.28 to the nearest tenth?
- What is 3.82 to one decimal place?

See also rounding up or down after division (page 57).

Recognise that, for example:

0.007 is equivalent to $\frac{7}{1000}$;
6.305 is equivalent to $6\frac{305}{1000}$;

particularly in the context of measurement.

Respond to questions such as:

- Which of these decimals is equal to $\frac{193}{100}$?
1.93 10.193 0.193 19.13
- Write each of these decimals as a fraction:
0.27 2.1 7.03 0.08

Continue to enter fractions into a calculator and interpret the display to find the equivalent decimal.

Predict the result before confirming.

For example:

$\frac{1}{1000}$	one thousandth	0.001
$\frac{1}{8}$	one eighth	0.125
$\frac{1}{3}$	one third	0.3333333
$\frac{2}{3}$	two thirds	0.6666666

Use a calculator to compare fractions. For example:

- Which of these two fractions is less?
 $\frac{7}{8}$ or $\frac{4}{5}$ $\frac{3}{4}$ or $\frac{11}{14}$
- Place these fractions in order:
 $\frac{7}{20}$, $\frac{9}{15}$, $\frac{13}{40}$, $\frac{8}{25}$