

## Multiplication and Division: Key Skill 15



### Use rounding to estimate answers and check the calculation



**Rounding** is to increase or decrease to the nearest 10, 100, 1 000 etc. For 1, 2, 3, 4 go down to 0. For 5, 6, 7, 8, 9 go up to 10. With fractions, rounding is to go to the nearest whole number. Nearest whole number and rounding mean the same thing.

**Estimating** is rounding numbers to make an educated guess close to the answer.



Children are encouraged to estimate to give them a guide as to what a reasonable answer would be. They also help to avoid simple mistakes. Always round and estimate before attempting to answer a question.



To estimate  $12 \times 253$ , round both numbers to the nearest 10 ( $10 \times 250$ ). This gives an estimate of 2 500. Children should be looking for an answer that is close to 2 500. If your answer is not close to this check your calculations.

$294 \div 9 = 300 \div 10 = 30$  as an estimate

Children should be looking for an answer that is close to 30

**Rounding Poem**

Underline the digit,  
Look next door.  
If it's 5 or greater,  
Add one more.  
If it's less than 5,  
Leave it for sure.  
Everything after is a zero,  
not more.



**WEB LINKS go to:**

[Video: Using rounding](#)

# Fractions and Decimals: Key Skill 16

## Compare and order fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100



A **numerator** is the number above the line in a fraction which shows how many parts are being considered.

A **denominator** is the number below the line in a fraction. It shows the number of parts a whole has been divided into.

The line in between the numerator and the denominator is called the **fraction bar**. Division bar and vinculum mean the same thing.



Pictures are hugely helpful in understanding fractions. A common mistake is thinking the larger denominator creates the larger fraction. It is the opposite for fractions. The smaller the denominator, the larger the fraction.

In Year 5, children start to play with fractions where the numerator changes the size of the fraction too. For example,  $\frac{7}{8}$  is larger than  $\frac{1}{2}$ .

Placing fractions on a number line helps children to see fractions as a (smaller) number in their own right. This is important for learning multiply and divide fractions in later years.



Try making fraction strips and number lines to help show that fractions are part of a whole.

Create pictures of different fractions from the same size whole and compare them.

Have a go at placing different fractions on the same number line!

The following exercise shows fractions being ordered from smallest to biggest.

$$\frac{8}{12} \quad \frac{1}{2} \quad \frac{2}{6} \longrightarrow \frac{2}{6} \quad \frac{1}{2} \quad \frac{8}{12}$$

$$\frac{1}{4} \quad \frac{2}{5} \quad \frac{1}{8} \longrightarrow \frac{1}{8} \quad \frac{2}{5} \quad \frac{1}{4}$$

$$\frac{3}{4} \quad \frac{1}{2} \quad \frac{5}{12} \longrightarrow \frac{5}{12} \quad \frac{1}{2} \quad \frac{3}{4}$$



**WEB LINKS go to:**

[Notes: Fractions on a number line](#)

[Video: Using a number line to order fractions](#)

[Game: Fraction fiddle](#)