

Calculation Guidelines for Gifted and Talented Children Working Beyond Primary Level

DIVISION

**Pencil and paper procedures (Written methods)**

Use written methods to support, record or explain division of:

- a three-digit number by a two-digit number
- a decimal with one or two decimal places by a single digit.

Refine methods to improve efficiency while maintaining accuracy and understanding.

$109.6 \div 8$  is approximately  $110 \div 10 = 11$ .

$$\begin{array}{r}
 109.6 \\
 - \underline{80} \quad (10 \text{ groups of } 8) \\
 29.6 \\
 - \underline{24} \quad (3) \\
 5.6 \\
 - \underline{5.6} \quad (0.7) \\
 0.0
 \end{array}$$

Answer: 13.7

**Pencil and paper procedures (Written methods)**

Continue to use the same method as in Year 7 and Year 8. Adjust the dividend and divisor by a common factor before the division so that no further adjustment is needed after the calculation

e.g.  $361.6 \div 0.8$  is equivalent to  $3616 \div 8$

Use the inverse rule to divide fractions, first converting mixed numbers to improper fractions.

Look at one half of a shape.

**How many sixths of the shape can**

you see? (six)

So, how many sixths in one half? (three)

$$\begin{aligned}
 \text{So } \frac{1}{2} \div \frac{1}{6} &= \frac{1}{2} \times \frac{6}{1} \\
 &= \frac{6}{2} \\
 &= 3
 \end{aligned}$$

