

MULTIPLICATIVE THINKING – SET 7

A Knows all times tables as well as the inverse division times tables.

$$7 \times 8 = 56 \longrightarrow 56 \div 8 =$$

$$4 \times ? = 36 \longrightarrow 36 \div 4 =$$

B Use known facts to split and solve problems.

$$208 \div 8 =$$

Inverse $8 \times ? = 208$

Find known fact $8 \times 10 = 80$

Double it $8 \times 20 = 160$

Work out the difference $208 - 160 = 48$

Solve the difference $8 \times 6 = 48$

Add the answers $20 + 6 = 26$

$$208 \div 8 = 26$$

C Use rounding and compensation to solve problems.

$$37 \times 5 =$$

Round number up $37 + 3 = 40$

Round up $40 \times 5 = 200$

Compensate $3 \times 5 = 15$

Find the difference $200 - 15 = 185$

$$37 \times 5 = 185$$

D Multiplying and dividing simple decimals and fractions and fractions.

Double to solve

$$350\% \text{ of } 4 =$$

$$3.5 \times 4 =$$

$$7 \times 4 = 28$$

$$3.5 \times 4 = 14$$

$$350\% \text{ of } 4 = 14$$

Split to solve

$$5.5 \times 7 =$$

$$5 \times 7 = 35$$

$$\frac{1}{2} \times 7 = 3.5$$

$$35 + 3.5 = 38.5$$

$$5.5 \times 7 = 38.5$$

Double to solve

$$72 \div 4.5 =$$

$$72 \div 9 = 8$$

$$72 \div 4.5 = 16$$

Double both to solve

$$15 \div 1 \frac{1}{2} =$$

$$30 \div 3 = 10$$

E Cross Products Multiplication Method
(This method can solve all multiplication problems)

$$86 \times 23 =$$

		10s	1s
	x	80	6
10s	20	1,600	120
1s	3	240	18

$$1,600 + 240 + 120 + 18$$

$$1978$$

F Long Division
(This method can solve all division problems)

$$364 \div 14 =$$

Divide: $36 \div 14 = 2$ with left over

Multiply: $2 \times 14 = 28$

Subtract: $36 - 28 =$

Bring Down: the 4

(Repeat) Divide: $84 \div 14 = 6$

Multiply: $6 \times 14 = 84$

Subtract: $84 - 84 = 0$

Bring down: as the answer is 0 there is no remainder so is the end.

$$\begin{array}{r} 26 \\ 14 \overline{) 364} \\ \underline{28} \\ 84 \\ \underline{84} \\ 0 \end{array}$$

$$364 \div 14 = 26$$