## MULTIPLICATIVE THINKING — SET 7



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

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

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



Use known facts to split and solve

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 
$$20 + 6 = 26$$

$$208 \div 8 = 26$$



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 
$$200 - 15 = 185$$

$$37 \times 5 = 185$$



Multiplying and dividing simple decimals and fractions and percentages.

Double to solve

Split to solve

 $5.5 \times 7 =$ 

 $5 \times 7 = 35$ 

$$7 \times 4 = 28$$

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

$$3.5 \times 4 = 14$$

35 + 3.5 = 38.5

 $5.5 \times 7 = 38.5$ 

Double to solve

Double both to solve

$$72 \div 4.5 =$$

15 ÷1 ½ =

$$72 \div 9 = 8$$

 $30 \div 3 = 10$ 

$$72 \div 4.5 = 16$$

## 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

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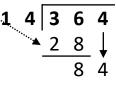
## (F) Long Division

(This method can solve all division problems)

$$364 \div 14 =$$

Bring Down: the 4

Divide:  $36 \div 14 = 2$  with left over Multiply:  $2 \times 14 = 28 \cdot 1 \cdot 4 \cdot 3 \cdot 6 \cdot 4$ Subtract: 36 – 28 =



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

Multiply: 6 x 14 = 84 ..... Subtract: 84 - 84 = 0

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

$$364 \div 14 = 26$$