

# Using mental strategies to multiply

## Sheet 2

1. Solve these:

$$36 \times 10 \quad 36 \times 2 \quad 36 \times 3$$

2. Use your answers from question 1 to easily solve:

$$36 \times 5 \quad 36 \times 20 \quad 36 \times 4 \quad 36 \times 8 \quad 36 \times 6$$

3. Use similar strategies to solve the following:

$$76 \times 5$$

$$64 \times 20$$

$$53 \times 6$$

$$82 \times 4$$

$$37 \times 8$$

$$153 \times 5$$

$$240 \times 20$$

In each case note down what you did to find the answer, e.g. 'Multiplied by 10 and then doubled'.

4. Does  $24 \times 30$  give the same answer as  $34 \times 20$ ?

Make a prediction. Use mental strategies to solve each multiplication and test your prediction.

### Challenge

Can you find a strategy for quickly solving these:

$$36 \times 50 \quad 36 \times 200 \quad 36 \times 60$$

(Hint! Look at what you already know.)

## Mental strategies for division

### Sheet 1

- |     |               |               |              |
|-----|---------------|---------------|--------------|
| 1.  | $360 \div 10$ | $360 \div 20$ | $360 \div 5$ |
| 2.  | $180 \div 10$ | $180 \div 20$ | $180 \div 5$ |
| 3.  | $420 \div 10$ | $420 \div 20$ | $420 \div 5$ |
| 4.  | $540 \div 10$ | $540 \div 20$ | $540 \div 5$ |
| 5.  | $150 \div 3$  | $150 \div 6$  |              |
| 6.  | $210 \div 3$  | $210 \div 6$  |              |
| 7.  | $450 \div 3$  | $450 \div 6$  |              |
| 8.  | $200 \div 2$  | $200 \div 4$  | $200 \div 8$ |
| 9.  | $288 \div 2$  | $288 \div 4$  | $288 \div 8$ |
| 10. | $216 \div 2$  | $216 \div 4$  | $216 \div 8$ |

## Mental strategies for division

### Sheet 2

- |     |               |               |              |
|-----|---------------|---------------|--------------|
| 1.  | $780 \div 10$ | $780 \div 20$ | $780 \div 5$ |
| 2.  | $430 \div 10$ | $430 \div 20$ | $430 \div 5$ |
| 3.  | $370 \div 10$ | $370 \div 20$ | $370 \div 5$ |
| 4.  | $270 \div 3$  | $270 \div 6$  |              |
| 5.  | $312 \div 3$  | $312 \div 6$  |              |
| 6.  | $123 \div 3$  | $123 \div 6$  |              |
| 7.  | $336 \div 2$  | $336 \div 4$  | $336 \div 8$ |
| 8.  | $656 \div 2$  | $656 \div 4$  | $656 \div 8$ |
| 9.  | $172 \div 2$  | $172 \div 4$  | $172 \div 8$ |
| 10. | $260 \div 2$  | $260 \div 4$  | $260 \div 8$ |

#### Challenge

Which of these three statements is true? Estimate first then use mental strategies to check.

A.  $240 \div 6 < 480 \div 12$

B.  $240 \div 6 > 120 \div 3$

C.  $240 \div 6 < 360 \div 2$