

Dividing 4-digit numbers by 2-digit numbers

1 Do these calculations as quickly as you can.

- a $36 \div 3 = \underline{\quad}$ b $160 \div 4 = \underline{\quad}$ c $240 \div 8 = \underline{\quad}$
 d $210\,000 \div 300 = \underline{\quad}$ e $1\,400 \div 10 = \underline{\quad}$
 f $1\,800 \div 0 = \underline{\quad}$ g $72\,000 \div 9 = \underline{\quad}$
 h $189 \div (7 \div 7) = \underline{\quad}$ i $888 \div 1 = \underline{\quad}$
 j $2\,000 \div 400 = \underline{\quad}$ k $480 \div (40 \times 2) = \underline{\quad}$
 l $1\,010 \div 1\,010 = \underline{\quad}$ m $0 \div 12 = \underline{\quad}$
 n $63\,000 \div (9 \times 1) = \underline{\quad}$ o $111\,000 \div 1\,000 = \underline{\quad}$

Let's revise using clue boards.

Number sentence: $3\,447 \div 17 = \square$

Clue board

$100 \times 17 = 1\,700$
 $200 \times 17 = 3\,400$ (Double 1 700)
 $10 \times 17 = 170$
 $20 \times 17 = 340$ (Double 170)
 $5 \times 17 = 85$ (Halve 170)
 $2 \times 17 = 34$
 $3 \times 17 = 51$

Multiply to estimate.	Subtract to get the difference.
$200 \times 17 = 3\,400$	$3\,447 - 3\,400 = 47$
$2 \times 17 = 34$	$47 - 34 = 13$ (The remainder is 13.)
$200 + 2 = 202$. There is a remainder of 13.	

Check your answer using the inverse rule (multiplication):

$202 \times 17 + 13 = 3\,447$ (Don't forget to add the remainder.)

2 Calculate using a clue board.

- a An interschool athletics event hosted 9 475 learners.
 There were 25 schools. How many learners were there per school, if each school entered an equal number?

Clue board

- b 8 295 new Grade 8 learners enrolled at 79 high schools.
 How many Grade 8 learners will each high school be taking in, if each school took the same number?

Clue board

More division

Long division is used with larger numbers.

$$5\ 986 \div 12$$

		•	4	9	8	
12	⌋	5	9	8	6	
-		4	8			
		1	1	8		
		1	0	8		
-			1	0	6	
				9	6	
				1	0	

The final answer is:
 $5\ 986 \div 12 = 498 \text{ rem. } 10$
 Check your answer using a calculator or multiplication.



- Can 12 go into 5? **No**
- Move to the next column.
- Can 12 go into 59? **Yes, 4 times**
- Write down 4 above the 9.
- Multiply: ($12 \times 4 = 48$)
- Subtract 48 from 59 (= 11)
- Bring down the 8.
- Can 12 go into 118? **Yes, 9 times**
- Write down 9 above the 8.
- Multiply: ($12 \times 9 = 108$)
- Subtract 108 from 118 (= 10)
- Bring down the 6.
- 12 goes into 106 eight (8) times.
- Write down 8 above the 6.
- Multiply: ($12 \times 8 = 96$)
- Subtract 96 from 106 (= 10)
- The remainder is 10.

1 Calculate using long division.

- a** A famous music artist sold
 9 387 CDs in 59 music stores.
 How many CDs did each shop sell,
 if they sold equally?

- b** A social networking site had 1 992
 people online for the day. How many
 people can we say were online on
 average every hour?

2 Remember that, when we work out an average, we add all the values and divide the total by the number of values that there are. These are the Maths scores over 5 tests written by six learners in our Grade 6 class. All the tests were out of 50.

- a** David: 33; 32; 18; 26; 32
b Lilian: 19; 28; 31; 32; 34
c Hendrico: 29; 27; 23; 25; 29
d Babalwa: 33; 39; 37; 31; 32
e Fred: 46; 37; 39; 44; 48
f Alex: 38; 39; 27; 36; 41

Average score: _____
 Average score: _____
 Average score: _____
 Average score: _____
 Average score: _____
 Average score: _____

- g** Whose average score could you predict would be in the 20s? _____