

Divide 4-digits by 1-digit

Reasoning and Problem Solving



Jack is calculating $2,240 \div 7$

He says you can't do it because 7 is larger than all of the digits in the number.

Do you agree with Jack?
Explain your answer.

Spot the Mistake

Explain and correct the working.

Thousands	Hundreds	Tens	Ones
1000 1000 1000	100 100 100	10	1 1 1
1000 1000 1000	100		1
1000 1000 1000			

	3	1	0	1
3	9	4	1	4

Divide with Remainders

Reasoning and Problem Solving



I am thinking of a 3-digit number.

When it is divided by 9, the remainder is 3

When it is divided by 2, the remainder is 1

When it is divided by 5, the remainder is 4

What is my number?

Always, Sometimes,

A three-digit number made of consecutive descending digits divided by the next descending digit always has a remainder of 1

$$765 \div 4 = 191 \text{ remainder } 1$$

How many possible examples can you find?

Short Division

Reasoning and Problem Solving

Find the missing digits.

$$\begin{array}{r} 041\text{r}3 \\ 4 \overline{) 1659} \end{array}$$

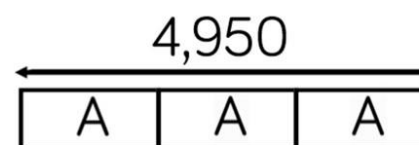
Here are two calculations.

$$A = 396 \div 11$$

$$B = 832 \div 13$$

Find the difference between A and B.

Work out the value of C.
(The bar models are not drawn to scale)



Division using Factors

Reasoning and Problem Solving

Calculate:

- $1,248 \div 48$
- $1,248 \div 24$
- $1,248 \div 12$

What did you do each time? What was your strategy?

What do you notice? Why?

Tommy says,



To calculate $4,320 \div 15$
I will first divide 4,320
by 5 then divide the
answer by 10

Do you agree?
Explain why.

Class 6 are calculating $7,848 \div 24$

The children decide which factor pairs to use. Here are some of their suggestions:

- 2 and 12
- 1 and 24
- 4 and 6
- 10 and 14

Which will not give them the correct answer? Why?

Use the correct factor pairs to calculate the answer.

Is the answer the same each time?

Which factor pair would be the least efficient to use? Why?

Long Division (1)

Reasoning and Problem Solving

Odd One Out

Which is the odd one out?
Explain your answer.

$$512 \div 16$$

$$672 \div 21$$

$$792 \div 24$$

Spot the Mistake

$$855 \div 15 =$$

		0	5	1	0	
1	5	8	5	5		
	–	7	5		(× 4)	
		1	0	5		
	–	1	0	5	(× 10)	
				0		

