

1 Use a hundred square.

a) Shade all the multiples of 10

Circle all the numbers that are multiples of 5

b) Use the hundred square to complete the sentences.

If an integer has a in the ones column, then it is divisible by 10

An integer is divisible by 5 if it has either a or a in the ones column.

c) Use the statements to complete the sentences.

divisible by 5	divisible by 5 and 10	not divisible by 5 or 10
----------------	-----------------------	--------------------------

2,300 is _____

50,053 is _____

2,379,645 is _____

2 **a)** Work out the divisions.

$63 \div 3$ $57 \div 3$ $960 \div 3$ $3,003 \div 3$

b) Find the sum of the digits in each number.

63 57 960 3,003

What do you notice?

3 Write the numbers in the table.

63	108	109	945	1,809
71	182	903	459	9,000,009

	Digit sum divisible by 9	Digit sum not divisible by 9
Divisible by 9		
Not divisible by 9		

What do you notice?

4



4 is divisible by 2, so any number that is divisible by 2 must also be divisible by 4

Do you agree with Tiny?

Explain your reasons.

5 Tick the boxes to show which numbers are divisible by 3, 4 and 12

Number	Is the number divisible by ...?		
	3	4	12
36			
84			
93			
156			
448			

Complete the sentence.

A number is divisible by 12 if it is divisible by both and

3 Write the numbers in the table.

63	108	109	945	1,809
71	182	903	459	9,000,009

	Digit sum divisible by 9	Digit sum not divisible by 9
Divisible by 9		
Not divisible by 9		

What do you notice?

4



4 is divisible by 2, so any number that is divisible by 2 must also be divisible by 4

Do you agree with Tiny?

Explain your reasons.

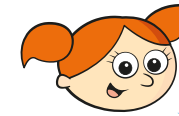
5 Tick the boxes to show which numbers are divisible by 3, 4 and 12

Number	Is the number divisible by ...?		
	3	4	12
36			
84			
93			
156			
448			

Complete the sentence.

A number is divisible by 12 if it is divisible by both and

6



I know that 16,245 is divisible by 15, because it is divisible by both 5 and 3

Explain how Alex knows 16,245 is divisible by 5 and 3

7

Use the divisibility rules for 2 and 9 to decide which of the numbers are divisible by 18

98	108	189	954
200	18,018	459	648

8

There are 315 books in a warehouse.

They can be packed into boxes of 2, 3, 5, 7 or 9 books per box.

Which box sizes could be used without leaving any books remaining?

9

A red light flashes every 12 seconds.

A blue light flashes every 15 seconds.

The lights start flashing at the same time.

a) Will both lights flash at 1,140 seconds?

A yellow light flashes every 9 seconds.

b) Will the yellow light flash after 1,140 seconds?

c) After how many seconds will all three lights flash at the same time?