1) Write the numbers in the correct columns (some numbers might belong in more than one column).

16, 40, 36, 55, 72, 24, 30

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10

2) Look at the numbers in each column. What do you notice? Write a rule for each column about how to identify if a number is a multiple.

a) Multiples of 2

b) Multiples of 3

c) Multiples of 5

d) Multiples of 10

3) Using your rules from question 2, sort the following numbers correctly.

7362, 8654, 6246, 3475, 4530, 3513

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10

1) Look at these statements. Decide if each one is always, sometimes or never true. Explain your reasoning for each statement.

   a) Multiples of 3 are also multiples of 6.

   b) If you add a multiple of 5 to a multiple of 10, you get a multiple of 5.

   c) Multiples of 4 are odd.

2) Jamie says, "My grandad's age this year is a multiple of 8. Next year, it will be a multiple of 7."

How old is Jamie's grandad?

1) Afiba says, "I am thinking of 3 consecutive numbers. The first is a multiple of 4, the second is a multiple of 5 and the third is a multiple of 6." What could the numbers be? Can you find 3 possible sets of numbers?
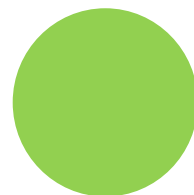
2) Akira says,

"I am thinking of a number. It is a multiple of 6 and it is also 1 less than a multiple of 5."

What could the number be?
Find 5 possible numbers.

ANSWERS

1)

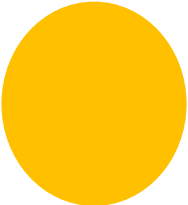| Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10
16	36	40	40
40	72	55	30
36	24	30	90
72	30	90	
24	90		
30			
90			

2) a) *The final digit is even.*
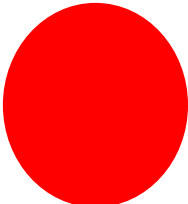
b) *The digit total is 3, 6 or 9 (or a multiple of 3).*

c) *The final digit is 0 or 5.*

d) *The final digit is 0.*

3)

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10
7362	7362	3475	4530
8654	6246	4530	2940
6246	4530	2940	
4530	3513		
2940	2940		

1) a) This is sometimes true. For example, 12 is a multiple of both 3 and 6. However, 15 is a multiple of 3 but not a multiple of 6.

   b) This is always true. Multiples of 5 end with a 0 or 5 and multiples of 10 always end with a 0. Therefore, adding a multiple of 5 to any multiple of 10 will result in the new number ending in 0 or 5, which is a multiple of 5.

   c) This is never true. Multiples of 4 are always even numbers.

2) Jamie's grandad is 48 years old. He could also possibly be 104!

1) Multiple answers possible, including: 64, 65, 66 | 124, 125, 126 | 184, 185, 186

2) Possible numbers are: 24, 54, 84, 114, 144, 174, 324, 354