

Find and use multiples

1 Write the first six multiples of each number.

a) 8

b) 15

c) 79

2 Here are some number cards.

15	16	18	20	24
25	28	30	32	35

Use the cards to give five multiples of each number.

a) 4

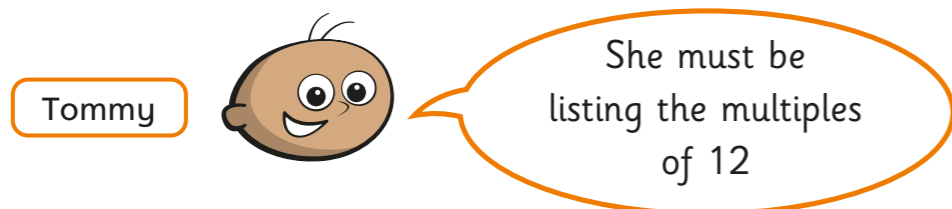
b) 5

c) 2.5

What do you notice about your answers to parts b) and c)?

3 Nijah is listing the multiples of a number.

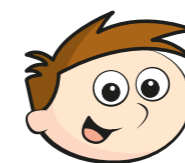
The numbers 12 and 36 are in her list.



Do you agree with Tommy? _____

Explain your answer.

4 Teddy is working out the smallest multiple of 9 that is greater than 500



This would take a long time as I would need to write out my 9 times-table up to 500

Do you agree with Teddy? _____

Explain your answer.

5 Are the statements true or false?

a) 55.5 is a multiple of 5 _____

b) 5 is a multiple of 10 _____

c) 49 is a multiple of 3.5 _____

d) 45 is 3 more than a multiple of 6 _____

e) 11,211 is a multiple of 3 _____

Discuss with a partner how you decided.

6 A number 58 bus leaves the station every 12 minutes between 9 am and 5 pm.

How many number 58 buses leave the station in a day?

- 7 Jack and Kim complete a test.
- The highest possible score is 80 marks.
 - Jack's score is a multiple of 9
 - Kim's score is a multiple of 7
 - Kim scored 16 fewer marks than Jack.

How many marks did Jack score out of 80?

8 The 6-digit number 23,456__ is a multiple of 3

What is the missing digit?

Discuss your method with a partner.

Is there more than one solution?

- 9 Alex is thinking of a number.
- The number is greater than 10, but less than 20
 - She knows her number is not a multiple of 2
 - If she multiplies her number by 8, she will get a multiple of 12

What number is Alex thinking of?

- 10 x is a positive integer.
- a) What value of x would make the expression $3x + 9$ a multiple of 7?
- b) What value of x would make the expression $3x + 9$ a multiple of both 4 and 6?
- c) What value of x would make the expression $3x + 9$ a multiple of 5, but not a multiple of 10?

Is there more than one solution for each part?

- 11 y is a positive integer.
- a) State whether the expressions are always, sometimes or never a multiple of 3

$6y$	$6y + 1$	$5y + 6$	$6y - 6$
_____	_____	_____	_____
$y \div 3$	$y - 3$	$6 - y$	$6y - 3$
_____	_____	_____	_____

- b) For any expressions that are sometimes a multiple of 3, give a value of y to support your answer.

Talk about it with a partner.