

Common multiples



1 Here is a hundred square.

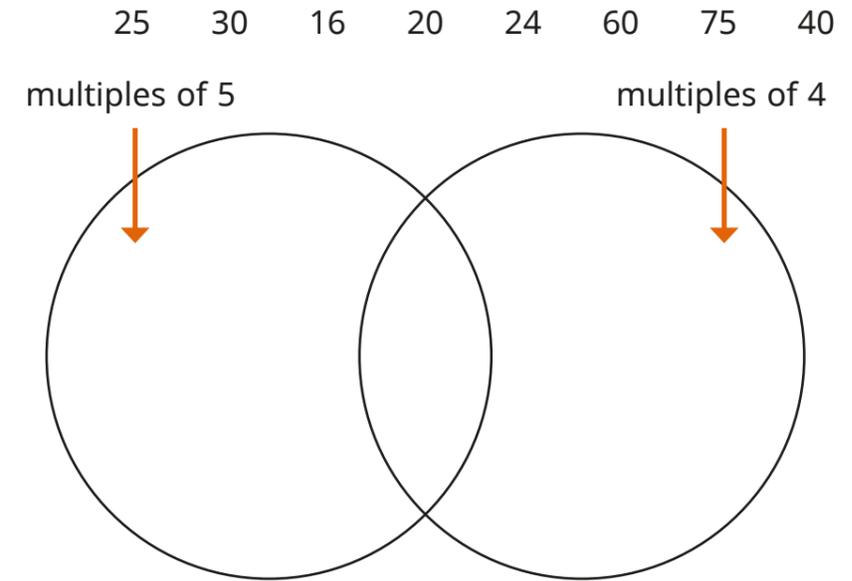
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

a) Shade all the multiples of 9

b) Circle all the multiples of 6

c) List any common multiples of 9 and 6

2 a) Write the numbers in the sorting diagram.



b) Write all the common multiples of 4 and 5 from the list.

c) Look at the common multiples of 4 and 5 from part b).

What do you notice?

Describe how to find more common multiples to add to this list.

Would you ever run out of common multiples?

3 a) Continue the lists of multiples.

Multiples of 5

5, 10, 15, , , , , , ,
, , , ,

Multiples of 7

7, 14, 21, , , , , , ,
, , , ,

b) Circle the common multiples of 5 and 7

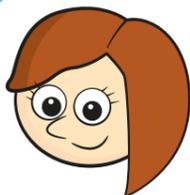
4

I worked out the common multiples of 4 and 6 by multiplying 4 and 6 together to get 24. Then I added on 24 again and again: 24, 48, 72 ...



Jack

I think your method might miss some common multiples.



Rosie

Who do you agree with and why?

5

Write the first five common multiples of each pair of numbers.

a) 2 and 3

b) 3 and 12

c) 15 and 10

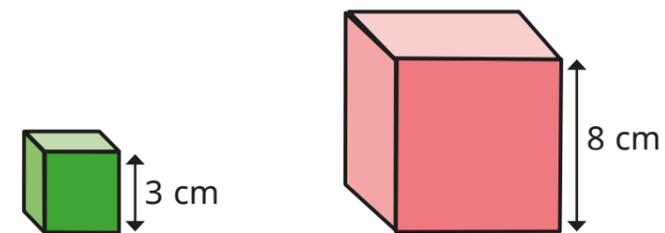
6

Rita has two grandchildren in different years at school. On Rita's 90th birthday she says to her grandchildren, "My age is a multiple of both your ages today."

How old could Rita's grandchildren be? Find two different solutions.

7

Here are some different-sized blocks.



Scott is building a tower from blocks that are 3 cm tall. Dora is building a tower from blocks that are 8 cm tall. They each build a tower taller than 50 cm, but shorter than 1 m. The towers are exactly the same height. How tall could the towers be?

Compare answers with a partner.

