

Reasoning and Problem Solving

Step 1: Count in 10s

National Curriculum Objectives:

Mathematics Year 1: (1N1b) [Count in multiples of twos, fives and tens](#)

Mathematics Year 1: (1C8) [Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher](#)

Differentiation:

Questions 1, 4 and 7 (Reasoning)

Developing Explain whether the answer is correct when given a hundred square. Counting forwards in 10s to 50.

Expected Explain whether the prediction is correct when given a hundred square. Counting in 10s to and from 100.

Greater Depth Explain whether the prediction is correct when given a partially completed hundred square. Counting in 10s to and from 100.

Questions 2, 5 and 8 (Problem Solving)

Developing Solve a simple word problem by counting in 10s to 50 with pictorial representations to support counting.

Expected Solve a simple word problem by counting in 10s to 100 with pictorial representations to support counting.

Greater Depth Solve a simple word problem by counting in 10s to 100 with minimal pictorial support.

Questions 3, 6 and 9 (Reasoning)

Developing Explain if the statement is correct when finding the missing number on a marked number line that is divided into increments of 10 up to 50.

Expected Explain if the statement is correct when finding the missing number on a number line that is divided into increments of 10 to 100 (start and end are marked).

Greater Depth Explain if the statement is correct when finding the missing number on a number line that is divided into increments of 10 to 100. Number line is labelled in words and increments other than the start and end of the number line are marked.

More [Year 1 Multiplication and Division](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Count in 10s

1a. Lee is counting in 10s starting from 10. He shades all the numbers he lands on.

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

Is he correct? Explain your answer.



R

Count in 10s

1b. Gia is counting in 10s starting from 10. She shades all the numbers she lands on.

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

Is she correct? Explain your answer.



R

2a. Max is planting seeds.

Each pack of seeds has 10 seeds.



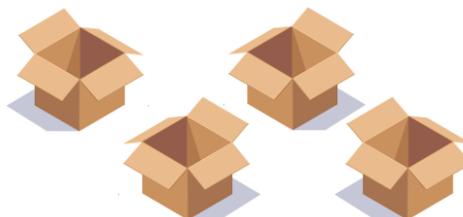
Does he have enough seeds to plant 40 flowers?



PS

2b. Cam is packing her toys.

Each box will hold 10 teddies.

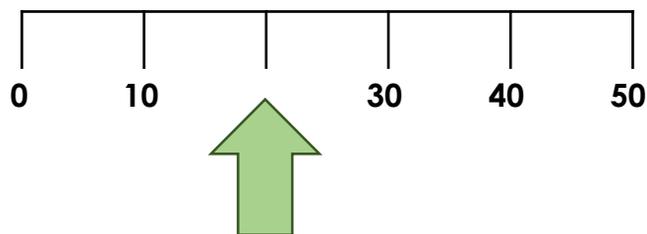


Does she have enough boxes to pack 50 teddies?



PS

3a. Viv thinks the arrow is pointing to 10.

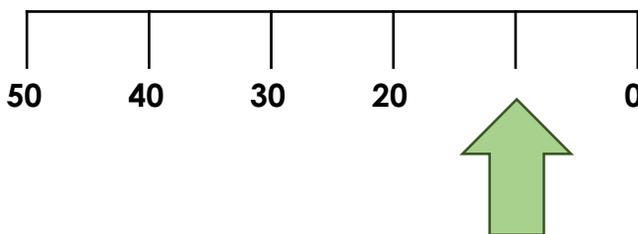


Is she correct? Explain how you know.



R

3b. Mo thinks the arrow is pointing to 0.



Is he correct? Explain how you know.



R

Count in 10s

4a. Fi is counting in 10s starting from 10. She thinks she will land on the number 50.

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

Is she correct? Explain your answer.



R

Count in 10s

4b. Jim is counting in 10s starting from 10. He thinks he will land on the number 19.

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

Is he correct? Explain your answer.



R

5a. Danika has 6 jars of cookies.

Each jar has 10 cookies.



Does she have enough to give 1 cookie to 62 children?



PS

5b. Miss Buttercup has 7 packs of pens.

Each pack has 10 pens.

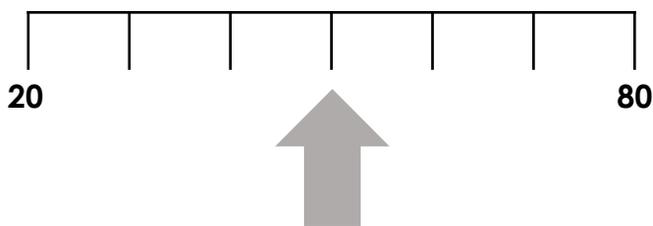


Does she have enough to give 1 pen to 50 children?



PS

6a. Mia thinks the arrow is pointing to 70.

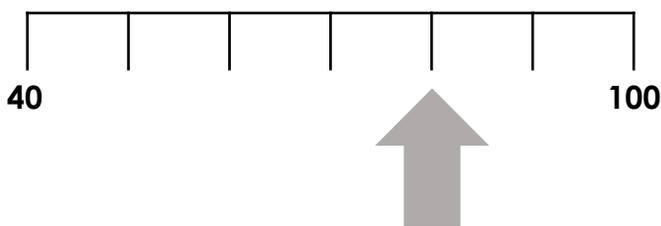


Is she correct? Explain how you know.



R

6b. Min thinks the arrow is pointing to 90.



Is he correct? Explain how you know.



R

Count in 10s

7a. Nina is counting backwards in 10s starting from 90. She thinks she will land on the number 50.

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

Is she correct? Explain your answer.



R

Count in 10s

7b. Neil is counting forwards in 10s starting from 40. He thinks he will land on the number 30.

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

Is he correct? Explain your answer.



R

8a. Marvin has 80 bottles of potions.

He puts 10 potions on each shelf.



Are seven shelves enough to hold all the bottles?



PS

8b. Nicola has 100 raffle tickets.

She puts 10 tickets in each pile.

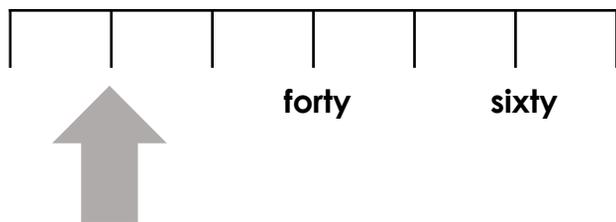


Are nine piles enough to hold all of her tickets?



PS

9a. Cara thinks the arrow is pointing to 10.

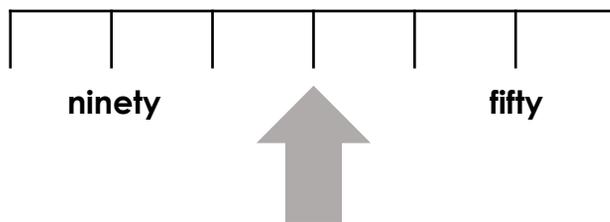


Is she correct? Explain how you know.



R

9b. Tim thinks the arrow is pointing to 60.



Is he correct? Explain how you know.



R

Reasoning and Problem Solving Count in 10s

Developing

- 1a. Lee is incorrect. He has counted on in ones from 10.
- 2a. Yes, he has 40 seeds.
- 3a. She is not correct because the missing number is 20.

Expected

- 4a. Fi is correct. All multiples of 10 end in 0 when starting from 10.
- 5a. No, there are 60 cookies so she does not have enough.
- 6a. She is not correct because the missing number is 50.

Greater Depth

- 7a. Nina is correct. She will shade all the numbers that end with 0.
- 8a. No, he needs 8 shelves to hold 80 bottles.
- 9a. She is incorrect because the missing number is 20.

Reasoning and Problem Solving Count in 10s

Developing

- 1b. Gia is incorrect. She has started from 1 instead of 10.
- 2b. No, she only has space for 40 teddies.
- 3b. He is not correct because the missing number is 10.

Expected

- 4b. Jim is incorrect. He has started at 10 and counted on 9 more, instead of 10 more.
- 5b. Yes, she has enough because she has 70 pens.
- 6b. He is not correct because the missing number is 80.

Greater Depth

- 7b. Neil is incorrect because he is counting forwards so the numbers he shades will be multiples of 10 greater than 40.
- 8b. No, she needs 10 piles to hold all of her tickets.
- 9b. He is incorrect because the missing number is 70.