

Reasoning and Problem Solving

Step 3: Add Equal Groups

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 (Problem Solving)

Developing Fill the blanks in a repeated addition calculation. Using up to 5 equal groups of 2. 1-to-1 pictorial support; numbers in numerals only.

Expected Write a repeated addition calculation. Using up to 6 equal groups of 2, 5 or 10. 1-to-1 pictorial support; numbers in numerals only.

Greater Depth Write a repeated addition calculation. Using up to 6 equal groups of 2, 5 or 10. Minimal pictorial support; numbers given in words and numerals.

Questions 2, 5 and 8 (Reasoning)

Developing Evaluate and correct statements relating to counting in 2s.

Expected Evaluate and correct simple statements relating to counting in 5s or 10s.

Greater Depth Evaluate and correct more complex statements relating to counting in 5s or 10s.

Questions 3, 6 and 9 (Problem Solving)

Developing Compare repeated addition to Numicon or cubes relating to counting in 2s.

Expected Compare repeated addition to Numicon or cubes relating to counting in 2s, 5s or 10s.

Greater Depth Compare repeated addition in a balancing equation to Numicon or cubes relating to counting in 2s, 5s or 10s.

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

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

Add Equal Groups

1a. Martin has 5 jars and he puts 2 pencils in each jar.



How many pencils does he have altogether? Show your working.

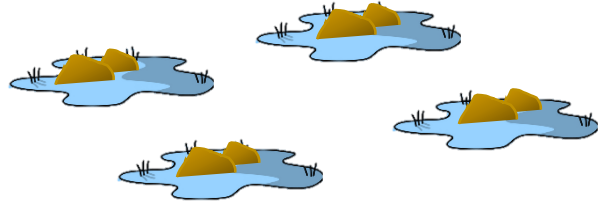
$$2 + 2 + 2 + 2 + 2 = \square$$



PS

Add Equal Groups

1b. The park has 4 ponds. Dave puts 2 rocks in each.



How many rocks does he have altogether? Show your working.

$$2 + 2 + 2 + 2 = \square$$



PS

2a. Jojo and Hassan have been counting in 2s starting from 0.

Jojo



5 groups of 2 is equal to 10.

Hassan

4 groups of 2 is 6.



Who is correct? Explain your answer.



R

2b. Martha and Kim have been counting in 2s starting from 0.

Martha



When you count in 2s all your numbers are even.

Kim

If you count in 2s you can't go higher than 10.

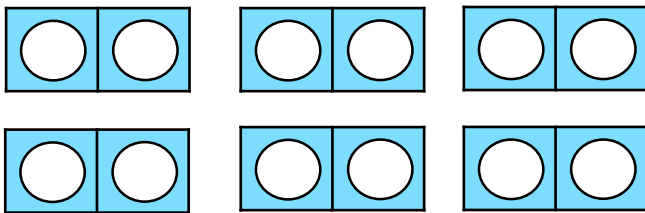


Who is correct? Explain your answer.



R

3a. Look at the Numicon and the number sentence below.



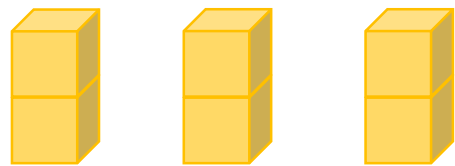
$$2 + 6 = 8$$

Find and correct any mistakes.



PS

3b. Look at the cubes and the number sentence below.



$$6 + 3 = 9$$

Find and correct any mistakes.



PS

Add Equal Groups

4a. Dion has 3 ships and he puts 5 pirates in each.



How many pirates does he have altogether? Show your working.

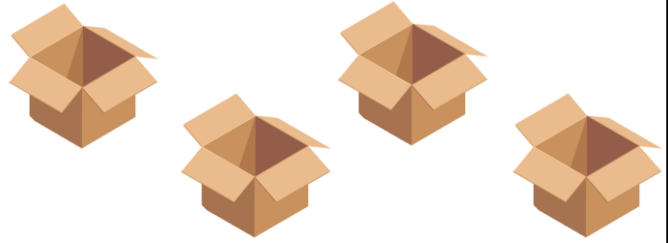
$$\square + \square + \square = \square$$



PS

Add Equal Groups

4b. Alexa has 4 boxes and she puts 2 spiders in each.



How many boxes does she have altogether? Show your working.

$$\square + \square + \square + \square = \square$$



PS

5a. Danyal and Theo have been counting in 5s starting from 0.

Danyal



All of my answers will be odd numbers.

Theo



All of my answers will end in a 5 or a 0.

Who is correct? Explain your answer.



R

5b. Annie and Sonya have been counting in 10s starting from 0.

Annie



I will not have any numbers smaller than 20.

Sonya



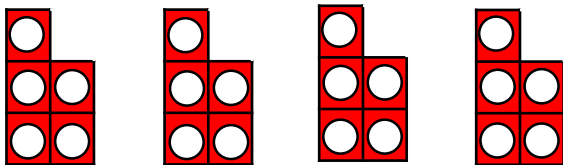
If I add one to the tens digit each time, I am counting in tens.

Who is correct? Explain your answer.



R

6a. Look at the Numicon and the number sentence below.



$$5 + 5 + 5 = 20$$



$$2 + 2 + 2 + 2 + 2 = 8$$

Find and correct any mistakes.



PS

6b. Look at the cubes and the number sentence below.



$$1 + 1 = 2$$



$$5 + 5 = 55$$

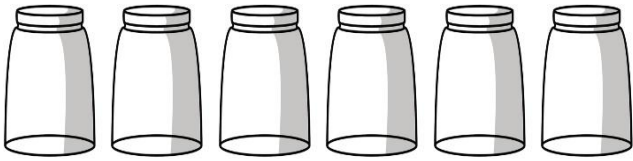
Find and correct any mistakes.



PS

Add Equal Groups

7a. Susie has six jars and she puts five sweets in each jar.



How many sweets does she have altogether? Show your working.



PS

Add Equal Groups

7b. Ellie has three train carriages and she puts ten blocks in each.



How many blocks does she have altogether? Show your working.



PS

8a. Paul and Sara have been counting in 5s and 10s.

Paul



If I count 4 lots of 5 and count 2 lots of 10, my answers are the same.

Sara



If I count 6 lots of 10 and 3 lots of 5, my answers will be the same.

Who is correct? Explain your answer.



R

8b. Soraya and Aaron have been counting in 5s and 10s.

Soraya



I have counted 7 lots of 5. My answer is bigger than Aaron's answer.

Aaron



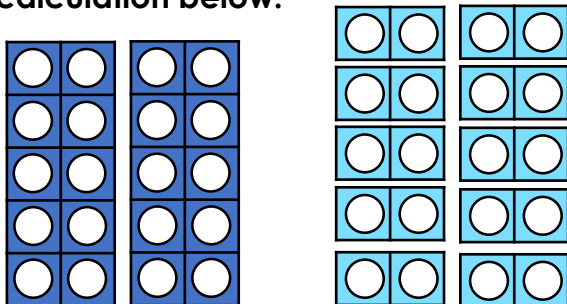
I have counted 4 lots of 10 so my answer is the biggest.

Who is correct? Explain your answer.



R

9a. Look at the Numicon and the calculation below.



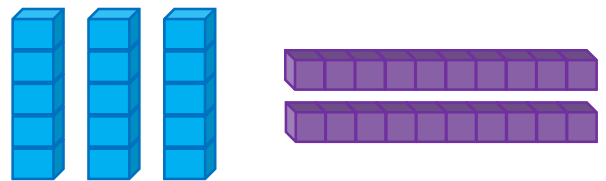
$$10 + 10 = 2 + 2$$

Find and correct any mistakes.



PS

9b. Look at the cubes and the calculation below.



$$5 + 5 + 5 = 10 + 10$$

Find and correct any mistakes.



PS

Reasoning and Problem Solving Add Equal Groups

Developing

- 1a. 10 pencils; $2 + 2 + 2 + 2 + 2 = 10$
2a. Jojo is correct because 5 groups of 2 is 10; $2 + 2 + 2 + 2 + 2 = 10$
3a. $2 + 2 + 2 + 2 + 2 + 2 = 12$

Expected

- 4a. 15 pirates; $5 + 5 + 5 = 15$
5a. Theo is correct because numbers ending in 5 are odd but those ending in 0 are even.
6a. $5 + 5 + 5 + 5 = 20$; $2 + 2 + 2 = 6$

Greater Depth

- 7a. 30 sweets; $5 + 5 + 5 + 5 + 5 + 5 = 30$
8a. Paul is correct because 6 lots of 5 is the same as 3 lots of 10.
 $5 + 5 + 5 + 5 + 5 + 5 = 30$; $10 + 10 + 10 = 30$
9a. $10 + 10 = 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$

Reasoning and Problem Solving Add Equal Groups

Developing

- 1b. 8 rocks; $2 + 2 + 2 + 2 = 8$
2b. Martha is correct because counting in 2s is counting in even numbers only.
3b. $2 + 2 + 2 = 6$

Expected

- 4b. 8 spiders; $2 + 2 + 2 + 2 = 8$
5b. Sonya is correct because counting in 10s only changes the tens column. Annie has forgotten about ten.
6b. $10 + 10 = 20$; $5 + 5 = 10$

Greater Depth

- 7b. 30 blocks; $10 + 10 + 10 = 30$
8b. Aaron is correct because he has counted to 40. Soraya has counted to 35.
9b. $5 + 5 + 5 + 5 = 10 + 10$