Reasoning and Problem Solving
Step 6: Make Equal Groups (Grouping)

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, 7 (Problem Solving)
Developing Use the arrays provided to find another way of making equal groups with the same number with none leftover. Total of no more than 20.
Expected Use the arrays provided to find another way of making equal groups with the same number where there may be some leftover. Total of no more than 30.
Greater Depth Use the arrays provided to find another way of making equal groups with the same number where there will be some leftover. Total of no more than 30.

Questions 2, 5, 8 (Problem Solving)
Developing Use part of an array and a statement about equal groups to find the total number of items. Total of no more than 20.
Expected Use part of an array and a statement about equal groups to find the total possible number of items. Total of no more than 30.
Greater Depth Use part of a group of objects that are not arranged in rows and columns and a statement about equal groups to find the total possible number of items. Total of no more than 30.

Questions 3, 6, 9 (Reasoning)
Developing Spot the mistake made when grouping items into equal groups of 2, 5 or 10. Items in an array with none leftover. Total of no more than 20.
Expected Decide whether items can be grouped equally in 2s, 5s or 10s when there may be some leftover. Items in an array. Total of no more than 30.
**Greater Depth** Decide whether items can be grouped equally in 2s, 5s or 10s when there will be some leftover or not enough. Items not arranged in rows and columns. Total of no more than 30.

More Year 1 Multiplication and Division resources.

Did you like this resource? Don't forget to review it on our website.

Make Equal Groups (Grouping)

Make Equal Groups (Grouping)

1a. Jason has 10 counters. He can group them into 2 equal groups of 5.
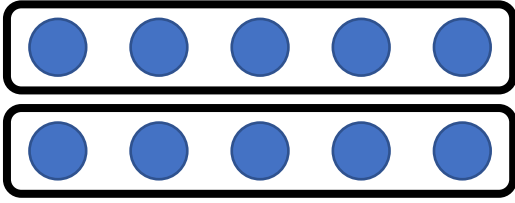
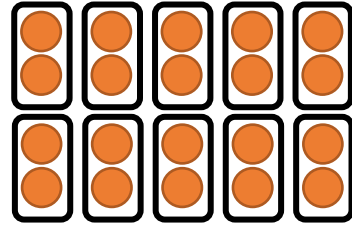How could he group them to make 5 equal groups?

He can make 5 equal groups of ☐ .

⭐D

PS

1b. Cora has 20 counters. She can group them into 10 equal groups of 2.

How could she group them to make 2 equal groups?

She can make 2 equal groups of ☐ .

⭐D

PS

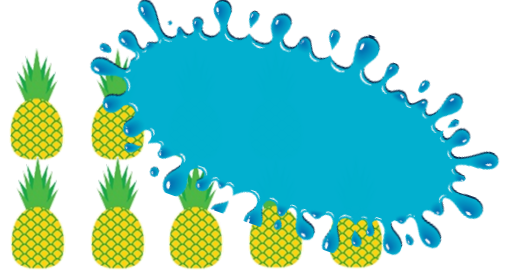**2a.** Ruby has fewer than 10 bananas. Some are hidden by the splat.

I can make equal groups of 2.

How many bananas could she have?

⭐D

PS

2b. Arthur has fewer than 15 pineapples. Some are hidden by the splat.
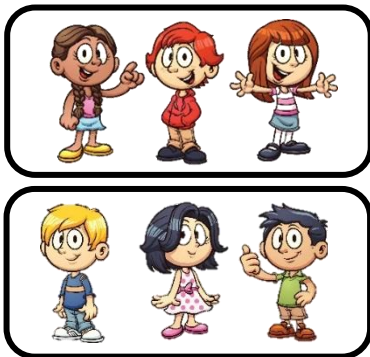

I can make equal groups of 5.

How many pineapples could he have?
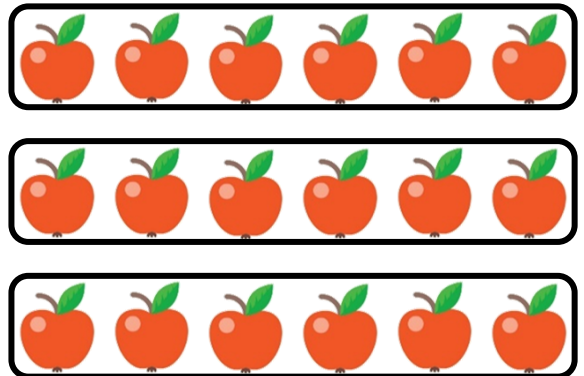
⭐D

PS

**3a.** Mary has grouped 6 children into equal groups of 2. What mistake has she made?

⭐D

R

3b. Frances has grouped 18 apples into equal groups of 5. What mistake has he made?

⭐D

R

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Reasoning and Problem Solving – Make Equal Groups (Grouping) – Year 1 Developing

Make Equal Groups (Grouping)

Make Equal Groups (Grouping)

4a. Ellie has 20 counters. She can group them into 2 equal groups of 10.
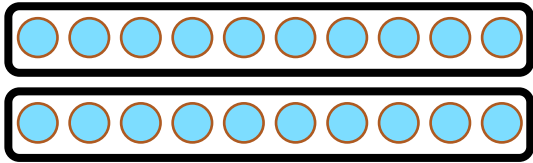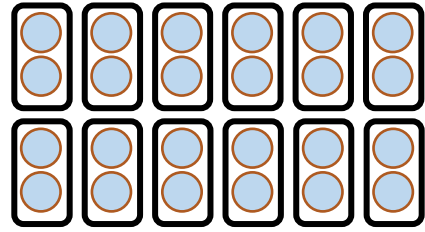
How could she group them to make 10 equal groups?

She can make ☐ equal groups of ☐ .

PS

4b. Moe has 24 counters. He can group them into 12 equal groups of 2.

How could he group them to make 4 equal groups with 4 leftover?

He can make ☐ equal groups of ☐ with 4 leftover.

PS

5a. Callie has fewer than 25 buttons. Some are hidden by the splat.

I can make equal groups of 5.

How many buttons could she have?

PS

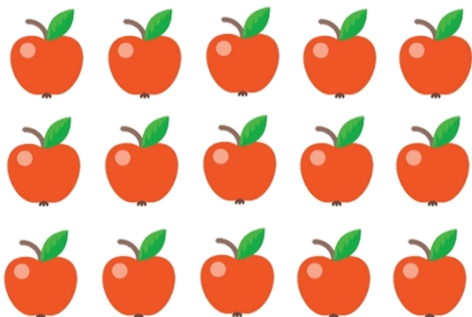**5b.** Carl has fewer than 15 leaves. Some are hidden by the splat.

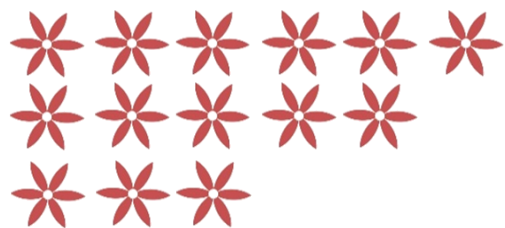I can make equal groups of 2.

How many leaves could he have?

PS

6a. Charlie is grouping some apples. He wants to make 7 equal groups of 2. Does he have enough apples?
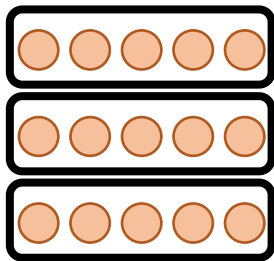
R

6b. Frankie is grouping some flowers. She wants to make 3 equal groups of 5. Does he have enough flowers?

R

Reasoning and Problem Solving – Make Equal Groups (Grouping) – Year 1 Expected

Make Equal Groups (Grouping)

Make Equal Groups (Grouping)

7a. Sarah has 15 counters. She can group them into 3 equal groups of 5.

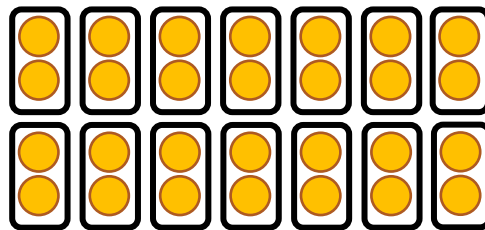How could she group them to make 7 equal groups? Will there be any leftover?

She can make ☐ equal groups of ☐. There will be ☐ leftover.

PS

7b. Han has 28 counters. He can group them into 14 equal groups of 2.
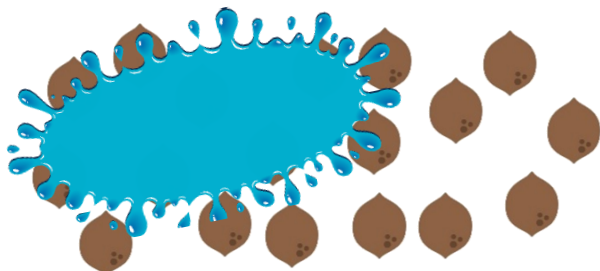
How could he group them to make 5 equal groups? Will there be any leftover?

He can make ☐ equal groups of ☐. There will be ☐ leftover.

PS

8a. Chris has fewer than 40 coconuts. Some are hidden by the splat.

I can make equal groups of 10.

How many coconuts could he have?

PS

8b. Michelle has fewer than 30 toys. Some are hidden by the splat.
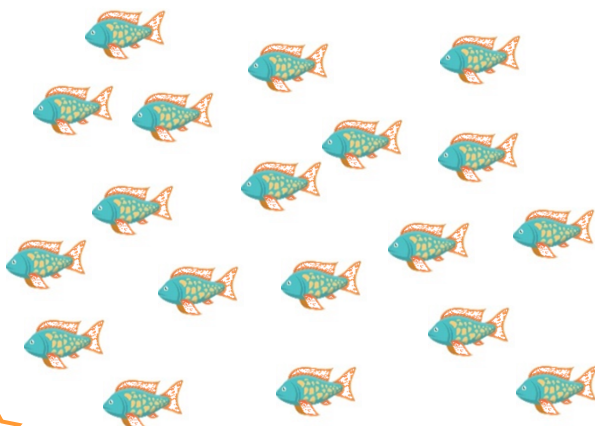
I can make equal groups of 5.

How many toys could she have?

PS

9a. Rachelle is grouping some fish.
She wants to make 4 equal groups of 5.
Does she have enough fish?

R

9b. Zack is grouping some leaves.
She wants to make 2 equal groups of 10.
Does he have enough leaves?

R

Reasoning and Problem Solving – Make Equal Groups (Grouping) – Year 1 Greater Depth

Reasoning and Problem Solving
Make Equal Groups (Grouping)

Developing
1a. Jason can make 5 equal groups of 2.
2a. Ruby could have 6 or 8 bananas.
3a. Mary has put the children into 2 groups not into groups of 2. She has made 2 equal groups of 3.

Expected
4a. Ellie can make 10 equal groups of 2.
5a. Callie could have 15 buttons.
6a. Yes he will have enough to make 7 groups of 2 and there will be 1 apple leftover.

Greater Depth
7a. Sarah can make 7 equal groups of 2. There will be 1 leftover.
8a. Chris could have 20 or 30 coconuts.
9a. No she will not have enough. She could make 3 equal groups of 5 and there would be 4 leftover.

Reasoning and Problem Solving
Make Equal Groups (Grouping)

Developing
1b. Cora can make 2 equal groups of 10.
2b. Arthur could have 10 pineapples.
3b. Frances has put 6 apples in each group not 5. He has made 3 equal groups of 6.

Expected
4b. Moe can make 4 equal groups of 5 with 4 leftover.
5b. Carl could have 10, 12 or 14 leaves.
6b. No she will not have enough. She could make 2 equal groups of 5 and there would be 4 leftover.

Greater Depth
7b. Han can make 5 equal groups of 5. There will be 3 leftover.
8b. Michelle could have 15, 20 or 25 toys.
9b. Yes he will have enough to make 2 groups of 10 and there will be 4 leaves leftover.

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