## Y1 Learning at home activity sheet \#5

## Problem 1:

These 10 ducks land in these two ponds.
How many ducks might land in each pond?

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Problem 2:
Tina has two more stickers than Len.
Altogther they have 12 stickers.
How many stickers does each person have?

Problem 3:


Ropati's mum says he can have $\$ 1.00$ to spend at the dairy. She puts out these coins.
What coins can Ropati choose to make $\$ 1.00$ ?


## Number match

Join the numbers with the words. 5 is already done.
nine
2
4
8
3
2

Write in the missing numbers:

| 0 | 1 | 2 |  | 4 |  |  | 7 |  | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 10 |  | 12 |  | 14 |  | 16 |  | 18 |  |

Looking for:
These three things are the shape of a cylinder.


How many cylinders can you find around your house? What are cylinders used for?

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## Pattern finding:

Draw the next two shapes in each pattern.


## Caterpillars:

Which caterpillar is the longest? Explain how you know.

draw the nextwo shapes in each patter.


Complete the fact families:

| $3+4=\square$ | $2+6=\square$ |
| :--- | :--- |
| $4+3=\square$ | $6+2=\square$ |
| $7-4=\square$ | $8-6=\square$ |
| $7-3=\square$ | $8-2=\square$ |




## Learning at home: Notes for whānau

When your child finishes each activity, ask them to add a mouth to the face to show how they felt about that activity.

## Problem 1:

Check that your child understands that ten ducks will distribute themselves on the two lakes.
Ask your child to come up with a possible arrangement. They may need support from countable objects such as buttons, bottletops, or fingers to work out a solution. An example might be 5 ducks on the left pond and 5 ducks on the right pond.

Ask your child to think of other possibilities, such as 2 ducks on the left pond and 8 ducks on the right pond. In all there are 11 possibilities that include 0 ducks on the left pond and 10 ducks on the right pond, and vice versa.

## Problem 2:

The problem has two conditions, and both must be met. Your child might choose to get one condition correct at first then experiment to get the other condition correct.

Drawing two children, Tina and Len, and using countable objects to be the stickers will be useful support.
Starting with 12 objects meets the second condition that there are 12 stickers in total.
Your child might experiment to share the 'stickers' between Tina and Len until the first condition is met. When Tina has 7 stickers, Len has 5 stickers, which is a difference of two.

## Problem 3:

Using real coins will help your child model the problem. Young children often have difficulty with recognising that a single coin can represent multiple cents. Experience with shopping for cheap items will help your child with money as will practicing counting up, and back, in tens.

Your child might find a first solution by common knowledge, such as "two 50 cents coins make $\$ 1.00$." Check that your child knows that $\$ 1.00$ equals 100 cents. Other solutions might be harder to find, and might proceed as follows:

50 cents (total 50 cents) $\rightarrow$ plus 20 cents (total 70 cents) $\rightarrow$ plus 20 cents (total 90 cents) $\rightarrow$ plus 10 cents (total 90, 100 cents, or \$1.00)

In all there are 3 solutions:

- $50 c+50 c$
- $50 c+20 c+20 c+10 c$
- $50 c+20 c+10 c+10 c+10 c$.


## Fact families:

| $3+4=7$ | $2+6=8$ |
| :--- | :--- |
| $4+3=7$ | $6+2=8$ |
| $7-4=3$ | $8-6=2$ |
| $7-3=4$ | $8-2=6$ |

## Looking for:

Discuss the features of the three objects shown. Your child should notice that cylinders have circles of each side and that the other surface wraps around the perimeter of both circles.

Common cylindrical objects around the home include cans, glasses, flower vases, jars, rubbish tins, and wheels on cars (including the hub). Cylinders make great containers.

## Caterpillars:

Discuss what the word longest means. The longest caterpillar is the furthest from tail to head, not the widest or fattest). Since the caterpillars are not lined up with a common starting point your child might choose to make an 'eyeball' judgment or use a unit of some kind, or a ruler. A common problem shows if your child believes the middle caterpillar is longest because its nose is furthest right.

Finger widths make a good unit of measure, but your child might choose a smaller unit, like beans or little stones, for more accuracy. An important idea is that the units are the same size (uniform), and your child joins them length-wisewith no gaps or overlaps.

You might model using a ruler by choosing centimetres as the unit and placing the zero mark (tick) at the tail of each caterpillar. Read off the scale by explicitly counting, " 1 centimetre, 2 centimetres, 3 centimetres, etc..." The lengths of the caterpillars are about $9 \mathrm{~cm}, 8 \mathrm{~cm}$, and 7 cm .

## Hidden shapes:

The purpose of this task is to see if your child can disembed (pull out) shapes amongst a collection of other shapes.

He or she may rely on the 'usual' views of a square (vertical and horizontal sides) and triangle (facing upward with equal sides). Finding that a square might look like a 'diamond' and a triangle can face downwards or sideways supports your child to attend to the important features of these shapes.


## Pattern finding:

The examples shown are of three object repeating patterns. Ask your child what they notice. Use the features they identify, say shape or colour, and recite the pattern orally.

For example, "Yellow, red, blue, yellow, red, blue, ..." or "Square, circle, triangle, square, circle, triangle,..." Saying and hearing the words will support your child to identify the element of repeat, that is, the section of the pattern that continually repeats. In the top pattern, that element is yellow square, red circle, and blue triangle.


