

# Y7 Learning at home activity sheet #3

## Problem 1:

Moana set her watch to exactly 11:00 on the last day of April. Unfortunately, the watch loses 11 seconds a day. What is the time on Moana's watch when it is 11:00 on the last day of May?



## Problem 2:

How many different shapes can you make by joining together five square tiles edge to edge?

## Problem 3:

If a baker can make 84 cakes from 6 bags of flour, how many bags will they need to make 154 cakes?

## Replacement dice:

If you had a game that said you should use a normal six-sided dice but you didn't have one, what could you use instead?

Find a way to randomly choose numbers between 1 and 6.

Test your method to check that each number is equally likely.

## Number facts:

Cut out the cards on the attached sheet and use them to practice your multiplication facts with place value.

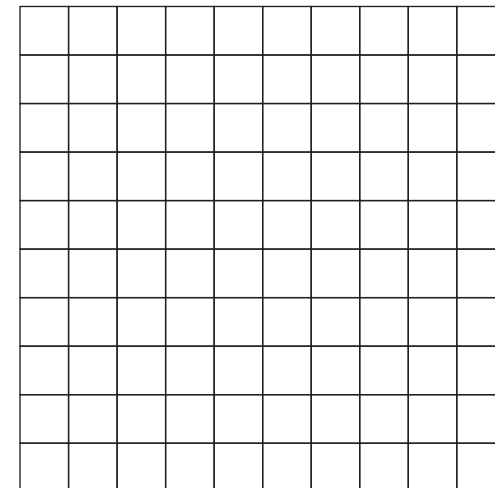
1. Shuffle the cards.
2. Pick two randomly and multiply them together.
3. If you need to, check your answers with a calculator.

## Quick questions:

1. What is  $15 \times 4$ ?
2. What is  $\frac{3}{4}$  as a decimal?
3. How many sides does a hexagon have?
4. What is the area of a square with sides 3cm long?
5. What is 0.1 as a fraction?
6. What is  $\frac{1}{3}$  of 24?
7. What do the angles inside a triangle add up to?
8. How many centimetres are there in half a metre?
9. What is  $0 \times 28$ ?
10. What is  $19.4 + 1.6$ ?

## Maths word find:

Make a maths word find. See how many different words that have something to do with maths you can include. Make sure you keep a list of the words so you can challenge a family member to find them!



# 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:

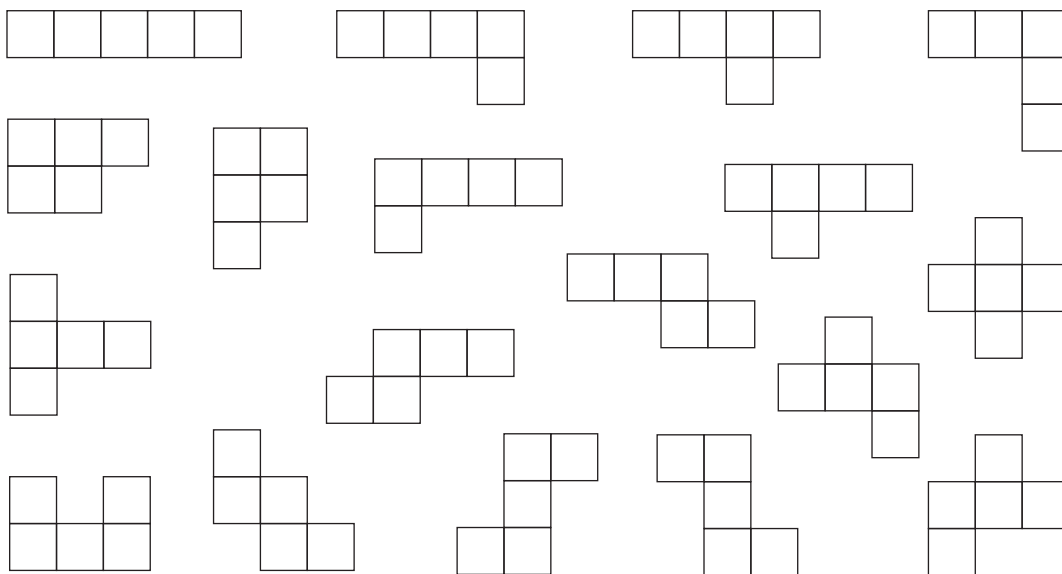
Since there are 31 days between the last day of April and the last day of May, Moana's watch will have lost  $31 \times 11 = 341$  seconds.

To convert this into minutes, divide by 60.  $341 \text{ seconds} = 5 \text{ minutes and } 41 \text{ seconds}$ .

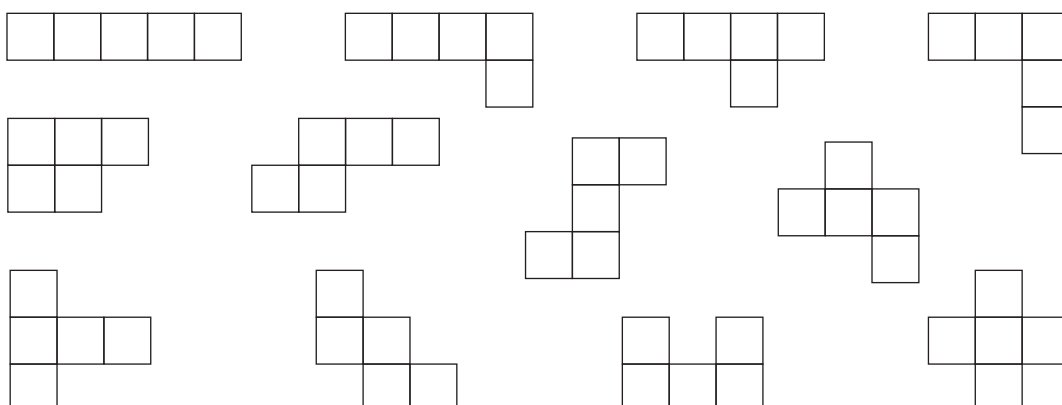
Then subtract 5 minutes 41 seconds from 11:00:00. This gives 10:54:19. This is the time on Moana's watch.

## Problem 2:

There are eighteen different shapes you can make by joining together five square tiles edge to edge. Any other shapes can be turned around to match one of these.



If you are allowed to flip the shapes over then several pairs of shapes are the same. There are then only 12 different shapes.



**Problem 3:**

6 bags of flour make 84 cakes. So 1 bag will make 14 cakes.

154 cakes is  $84 + 70$  cakes.

Since 1 bag makes 14 cakes, then 70 cakes will take 5 bags ( $70 \div 14 = 5$ ).

So it takes 6 bags to make 84 cakes and 5 bags to make 70, so 11 bags altogether.

**Replacement dice:**

How your child carries out this task will depend on the equipment available. They may suggest making a cube out of cardboard. This would be a good exercise to try. It is important to have all the sides exactly the same, which is quite hard to manage with a cardboard construction.

Other options that might also work:

- Use six playing cards with the numbers 1-6. Shuffle and draw one randomly.
- Write numbers of 6 small stones (or counters, or shells, or pieces of paper) and draw them out of a bag.
- Make a spinner using cardboard and a paper clip.

To test their method they should use it a reasonably large number of times and record the results, then check and see if each number has come up about as often. Discuss with them whether they should expect each number to come up exactly the same amount (No).

**Quick Questions:**

1. 60
2. 0.75
3. 6
4.  $9\text{cm}^2$
5.  $\frac{1}{10}$
6. 8
7.  $180^\circ$
8. 50cm
9. 0
10. 21

1	2	3	4	5
6	7	8	9	
10	20	30	40	50
60	70	80	90	
100	200	300	400	500
600	700	800	900	1000