Go For It Maths!
KEY STAGE 1
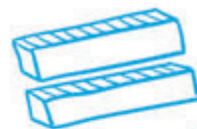
Let's Add & Subtract

Practise and Learn with Games and Activities

By Mike Askew

Tips for Doing Maths with Your Child

- Find a quiet place to work with no distractions. Turn off the TV, music and screens.

- The activities in this book have been designed to help children practise adding and subtracting while playing games and having fun. There are specific tips relating to each activity on pages 30–32.

- Do praise your child for specific mathematical things they do. If you say, "*That was a really smart way you added those two numbers together*", it will be more effective than "*You are clever*".

- Do let your child teach you. Listen to how they are trying to do the maths and help them refine what they are doing before rushing to show them **your way**.

- Do treat getting stuck as a positive experience. **Yet** is a powerful word. "*I can't do it!*" can be turned around by saying, "*You can't do it – yet!*"

- Do stop work and put an activity aside if your child gets frustrated. When you come back to the activity the following day, they are likely to have fresh ideas.

- Avoid saying things such as "*Don't worry. I was never any good at maths.*" Help your child develop a **can-do** view of learning maths.

Above all, treat all the activities playfully and enjoy them together.

Contents

Ladybird Ladybird

The ladybird needs some spots.

You will need:
- Buttons or counters

Use some buttons or counters to put the same number of spots on each wing.

How many spots does your ladybird have altogether?

Now put a different number of spots on your ladybird. Make sure each wing has the same number of spots.

Make a Prediction

Take a handful of your counters.

How many do you have?

Can you use that number of counters to put spots on the ladybird so that each wing has the same number and there are no counters left over?

Put the counters on the ladybird's wings and check your prediction.

Four's Fantastic Facts

Numbers that can be split exactly into two equal groups are called **even numbers.** The other numbers are called the **odd numbers.**

Shape Numbers

Get Ready

You will need:
• Buttons or counters

Take 16 counters and arrange them to make a square.

Sixteen is a **square number.**

> What other numbers can be square? Use your counters to investigate.

Arrange 15 counters to make a triangle.

Fifteen is a **triangular number.**

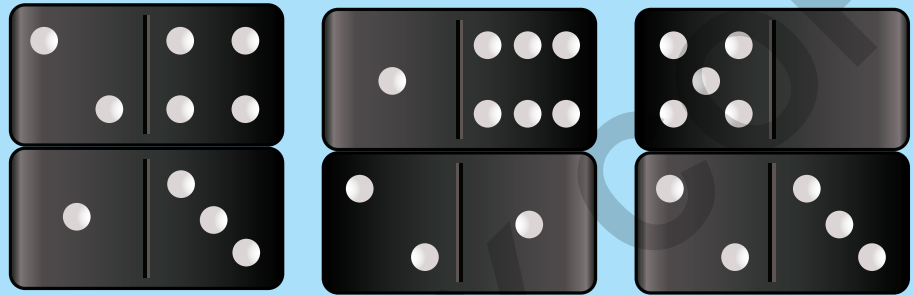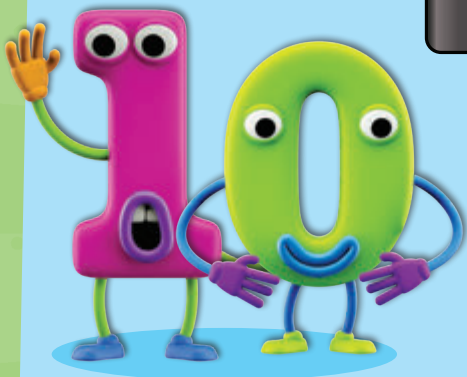> What other numbers can be triangular? Use your counters to investigate.

GO For It!

Can you find a number that is square AND triangular?

Domino Challenge

To play these games you will need a set of dominoes.

10 Square

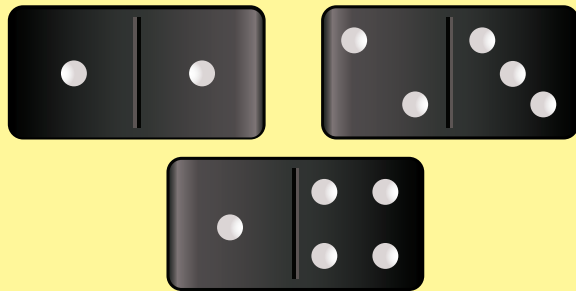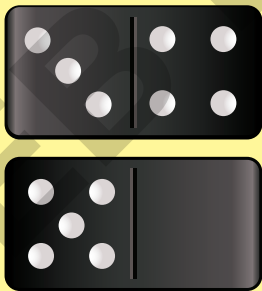**What do you notice about these domino squares?**

The total number of spots in each square is 10.

Make some more domino 10 squares.

How many can you find?

Make 12

The dots on these two sets of dominoes add up to 12.

Can you make a set of dominoes where the dots add up to 12?

What is the biggest set of dominoes you can make with a total of 12 dots? What is the smallest set?

How many sets like this can you make?

Let's Make 10

Your challenge in this game is to make pairs of cards that add up to 10.

Get Ready

You will need:
- A pack of playing cards with the picture cards taken out (Aces count as the number 1)
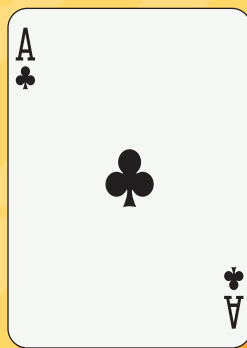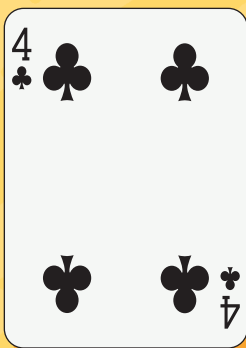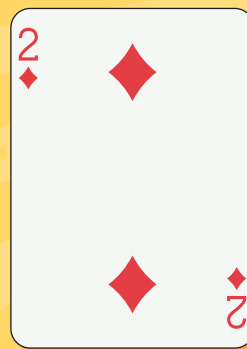
1 Shuffle, or mix up, the cards.
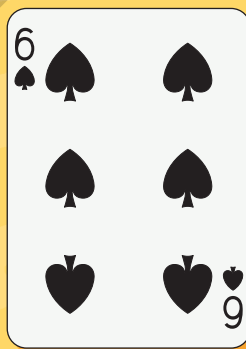
2 Lay out the top eight cards from the pack face-up in a two-by-four grid.

Can you find a pair of cards that add up to 10?

3 If you can find a pair of cards that add up to 10, cover them with two new face-up cards. If there are two 10s showing, cover this pair with two new face-up cards.

4 Keep covering pairs of cards.

Can you deal out all of the cards?

14

Magic Dice

Look at a dice. The numbers on the opposite sides always add up to 7.

1 + 6 = 7

2 + 5 = 7

3 + 4 = 7

This fact can be used to amaze your friends!

Get Ready

You will need:
- 3 dice
- A pen and paper

1 Give your friend the three dice and a pen and paper. Turn around so you cannot see the dice.

2 Tell your friend to stack the dice on top of each other. Explain that five numbers now can't be seen.

3 Ask your friend to peek at the five hidden numbers and write them down. Next, your friend should add up the hidden numbers and write down the total. Finally, they should fold up the paper so you can't see the total.

Two numbers are hidden here.

Two numbers are hidden here.

One number is hidden here.

4 Turn around. Ask your friend to hold the paper to their forehead and think of the total.

5 Look at the number facing upward on the very top of the dice tower. Subtract that number from 21. The answer will be the total written on the paper. Say the number and amaze your friend!

GO For It !

Can you figure out how the numbers on a dice make the magic trick work?

16

Five Steps to 50

Your challenge is to get as close to 50 as possible in five steps of 10 or 1.

1 Roll the dice twice and write down the scores.

2 Use the scores to make two 2-digit numbers. For example, if you roll a 3 and a 5 you can make:

35   **53**

These are your starting numbers.

3 Take one of your starting numbers. You can add or subtract 10 or 1 to this starting number.

4 Do this exactly five times.

How close to 50 can you get?

5 Now do this with the other starting number. Which starting number gets you closer to 50?

35

Step 1:   35 + 10 = 45

Step 2:   45 + 10 = 55

Step 3:   55 − 1 = 54

Step 4:   54 − 1 = 53

Step 5:   53 − 1 = 52

53

Step 1:   53 + 10 = 63

Step 2:   63 − 10 = 53

Step 3:   53 − 1 = 52

Step 4:   52 − 1 = 51

Step 5:   51 − 1 = 50

Spot on!

At the Corners

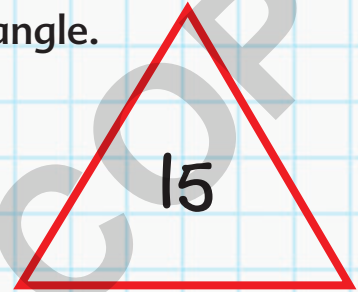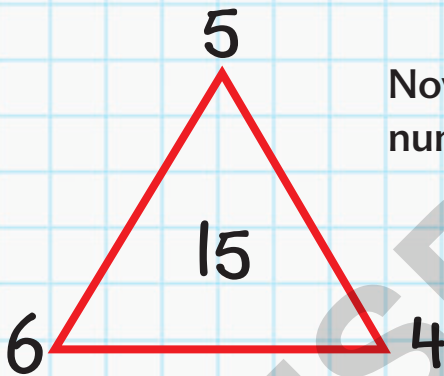## Get Ready

You will need:
- Paper and a pen or pencil

Draw a triangle on your sheet of paper.

Write a number in your triangle. For example, 15.

15

How many different ways can you find to put different numbers at the corners that always add up to 15?
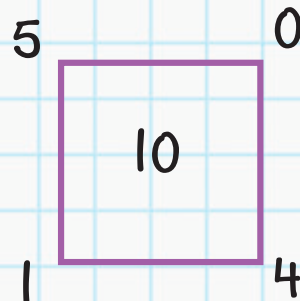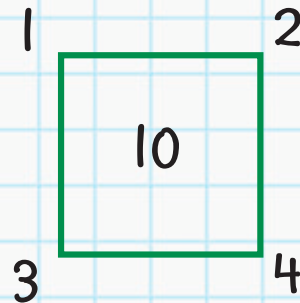
5

6   15   4

Now try again with a different number inside the triangle.

Go For It!

Draw a square instead of a triangle.

Write a number in the middle.

Find four numbers to go on the square's corners that add up to the number in the middle.

1   2
    10
3   4

5   0
    10
1   4

22

Nice & Nasty

This card game can be played NICE or NASTY!
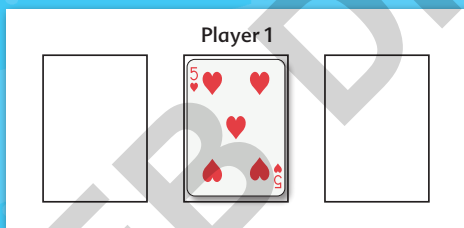Each player tries to make the largest 3-digit number.
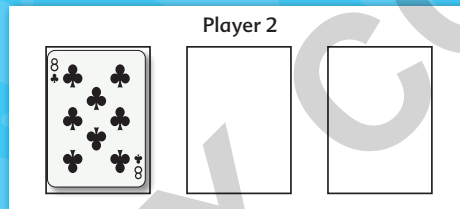
Get Ready

You will need:
- A pack of playing cards with just the 1 to 9 cards (Aces count as 1)
- A friend to play with

To Play Nice

1 Shuffle, or mix up, the cards and put them face down in a pile.

2 Player One turns over the top card. They put the card face up on one of the spaces on their board on page 27.

Player 1

3 Player Two turns over the next card. They put the card face up on their board.

Player 2

4 The players continue taking turns until all six spaces are filled. Here, Player One has made 951. Player One wins!
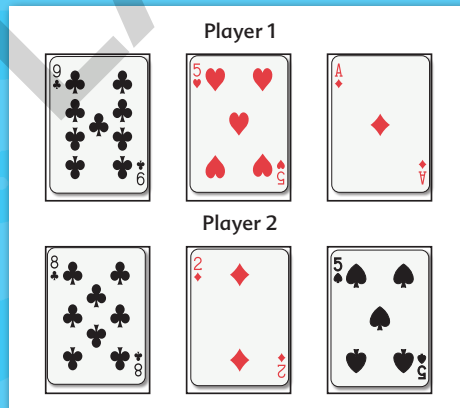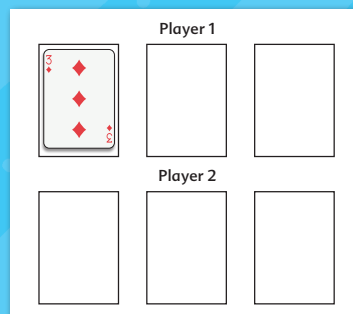
Player 1

Player 2

5 Put the six cards back in the pack, shuffle the cards and start again. The winner is the first player to score 5 points!

To Play Nasty

This game is just like Nice, but now each player can either place their card on their own spaces or place it on their opponent's board.

The players continue taking turns. If one player's board gets filled first, then both players must lay their cards on the other board.

Player 1

Player 2

Player Two has placed a 3 card on Player One's board. This means Player One now can't make a very high number!

Silly Stories

Who can make up the silliest mathematics story problem?

Get Ready

You will need:
- 4 counters
- A dice
- A friend to play with

1 Roll the dice. Use the score to decide who will be the characters in your story. Place a counter next to those characters.

Who

1. King and queen
2. Brother and sister
3. Cat and dog
4. Princess and dragon
5. Elephant and mouse
6. Horse and rider

2 Roll the dice again. Use the score to decide where your story takes place.

Where

1. At a farm
2. By the seaside
3. In a boat
4. Under the sea
5. In a castle
6. At the supermarket

3 Roll the dice again. Use the score to decide what the characters are doing.

What

1. Baking a cake
2. Bouncing a ball
3. Washing plates
4. Having a race
5. Eating toast
6. Jumping up and down

4 Roll the dice again. Use the score to decide what mathematical word or words have to be in your story.

Maths Words

1. Plus
2. Minus
3. Add
4. Take away
5. Altogether
6. Difference

Page 21: Make 15

There is a way of arranging the nine cards so that every row, column and diagonal add up to 15. It is unlikely that your child will find this solution, but if they are interested to try this challenge, here are some examples of the answers they might find. This type of arrangement of numbers is known as a Magic Square.

4	9	2
3	5	7
8	1	6

| 8	1	6
3	5	7
4	9	2

6	1	8
7	5	3
2	9	4

Page 22: At the Corners

Putting numbers into triangles or squares will help your child become confident in thinking about adding three or four small numbers. If they find the activity easy, encourage them to try a larger number in the centre of the triangle or square.

Page 23: What's the Difference?

This activity is a great way to practise subtraction. All the answers eventually reduce to zero, motivating your child to try larger numbers to see if it still works.
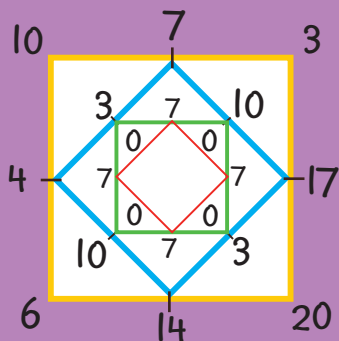
Pages 24—25: Four in a Row

This game provides practise in adding. It also involves strategic thinking as players not only have to try and create their own line of four, but also try to block their opponent.

Pages 26—27: Nice & Nasty

Both versions of this game are about ordering three-digit numbers but the nasty version adds a twist that children love. Talk with your child about whether at any point in the game they know for certain who has won before both numbers are complete.

Pages 28—29: Silly Stories

Being able to carry out calculations is important. However, your child also needs to know when a calculation might be used. They should also be able to confidently use the different terms for addition and subtraction. This activity provides a light-hearted way to play with both of these skills.
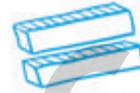
GO For It Maths!
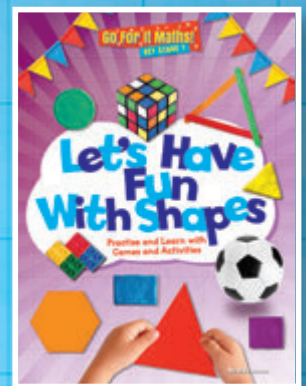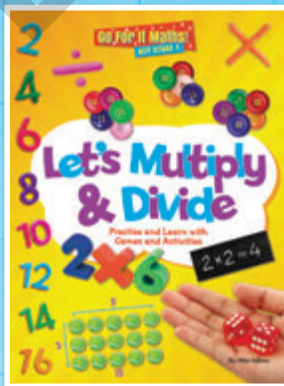KEY STAGE 1

Let's Add & Subtract

Practise and Learn with Games and Activities

Filled with page after page of games and activities, this book is packed with opportunities for young mathematicians to practise their maths skills and have fun with numbers!

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