

Year 3 and Year 4 Maths ideas

Key things to practice at home:

- *Telling the time*
- *12 hour and 24 hour time - use a radio or tv times or tv schedule*
- *Shopping – use of money*
- *Times tables – times tables rockstars*

Useful Weblinks

- Corbett Maths – videos and tasks, you can choose a topic, watch a video and then do some questions <https://corbettmaths.com>
- Topmarks – have some free maths games to explore www.topmarks.co.uk
- Mathsframe – have some free maths games and activities you can try including a version of the multiplication check <https://mathsframe.co.uk>
- Arcademic Skills builders – have games to support practice of the 4 rules www.arcademics.com
- Mathplayground – mix of free games www.mathplayground.com
- My Mini Maths – video tutorials and activities <https://myminimaths.co.uk> (year 3 and year4), there is also an area for building up skills in times tables



Games with dice and counters

Game 1: Shut the Box – play in pairs, teams, on own.

You need the numbers 1 to 15 and 3 dice.

Write the numbers on a piece of paper. Roll 3 dice, look at the numbers on the dice e.g. If you roll a 2, 3 and 6 you can cross off:

2, 3 and 6

11 (adding all 3 together)

5 and 6 (added 2+3 and 6 on its own), 9 and 2 , 8 and 3

4 and 3 (6-2 and 3) any differences

Keep going until you can no longer go.

Game 2: Totals

Roll 4 or 5 dice and add them altogether – can you make all the totals to 30?

How many different ways can you make the total of 12? 22? 30?

Game 3: Multiplication facts

Roll 2 dice together and multiply them to practice your tables

Roll 3 dice together and multiply them (Y4 only)



Games with playing cards

Y3 – practice 2, 5, 10, 3, 4, 8, 6

Y4 – all tables

Game 1: Queen is 12

Choose a times table you need to practice. You need a set of cards Ace to Queen. (Ace = 1, Jack = 11, Queen = 12). Mix up the cards, turn over the cards one at a time and write down the multiplication sentences, the division sentences and the answers to all 4 number sentences.

Game 2: 4 rules

You need some playing cards 1-9

Y3: Choose 3 different cards

Y4: Choose 4 different cards

Choose your playing cards, make all the 3 or 4 digit numbers that you can.

Then make 6 different totals using these numbers.

Make 6 different differences using these numbers.

Game 3: Largest and smallest

Choose a times table you need to practice (3, 4, 5, 6, 7, 8, 9)

Make a 2 digit number and multiply it by a single digit. Do this 5 times. Which had the largest answer? Smallest?

Why ?

Make a 2 or 3 digit number and divide it by 2 – what do you notice?

What if you divide a number by 5?

Game 4: Missing subtraction (you could use playing cards as the numbers)

You have the numbers 0-9 but don't have to use them all. How many solutions can you find?

$$\square\square - \square\square = \square\square$$

Game 5: Make the numbers

$$\square\square\square - \square\square$$

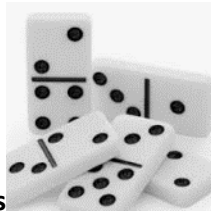
Choose 5 different single digit numbers and use them to make one 3 digit number and one two digit number where the difference between the 2 numbers is:

As small as possible

As large as possible

Even

Odd



Games with Dominoes

Game 1: Fraction domino sort

Pick out 12 different dominoes. Use them as fractions.

Sort them into sets fractions larger/smaller than $\frac{1}{2}$.

How many fractions can you find with an odd denominator? And odd numerator?

Game 2: Fraction add and subtract

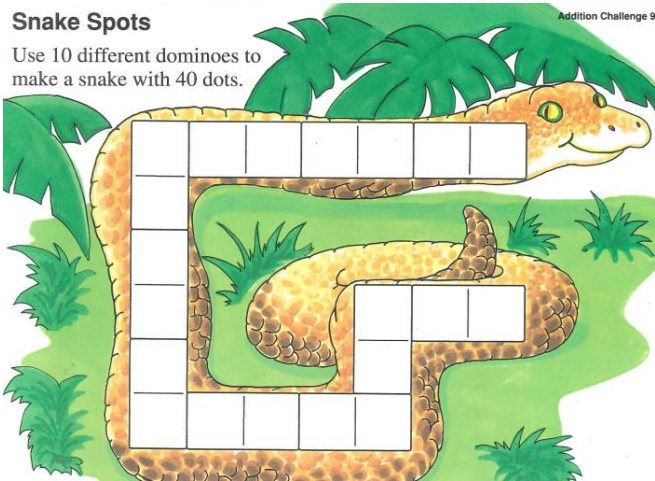
Choose 2 fractions and make them into fractions. Find the total and the difference.

Do this 4 or 5 times.

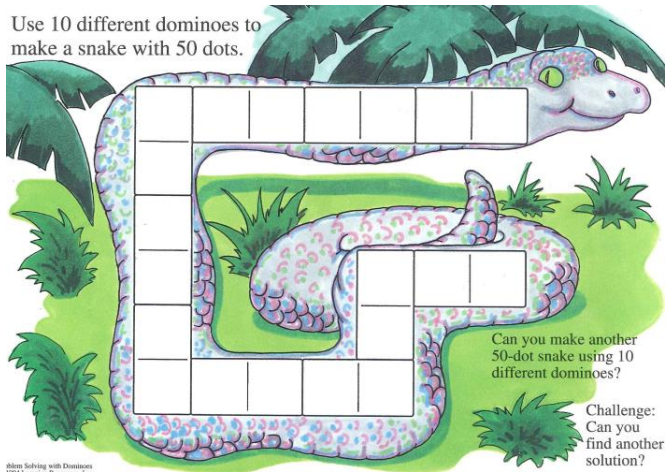
Game 3: Snake Domino card puzzles

Snake Spots

Use 10 different dominoes to make a snake with 40 dots.



Use 10 different dominoes to make a snake with 50 dots.

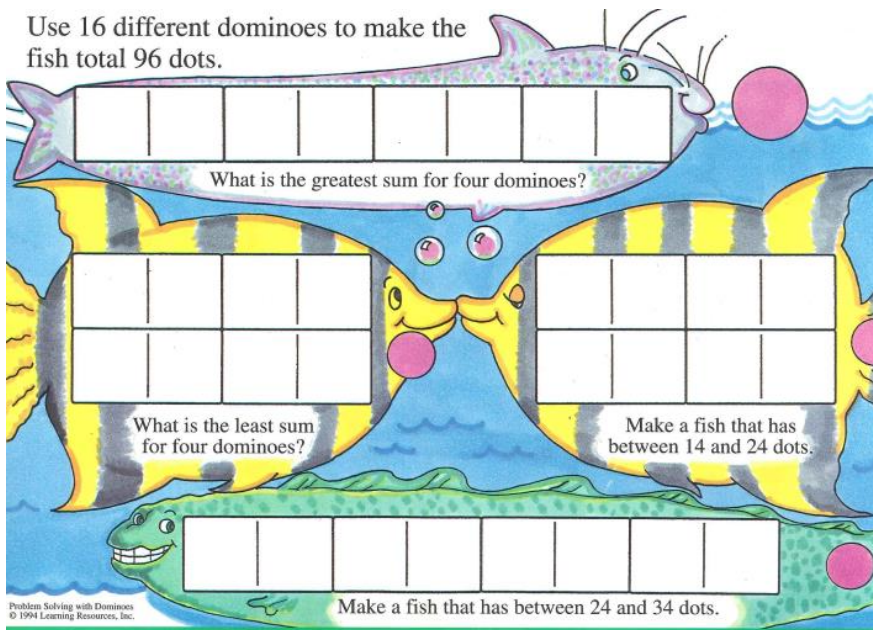


Can you make another 50-dot snake using 10 different dominoes?

Challenge: Can you find another solution?

Game 4: Fishy puzzle

Use 16 different dominoes to make the fish total 96 dots.



What is the greatest sum for four dominoes?

What is the least sum for four dominoes?

Make a fish that has between 14 and 24 dots.

Make a fish that has between 24 and 34 dots.

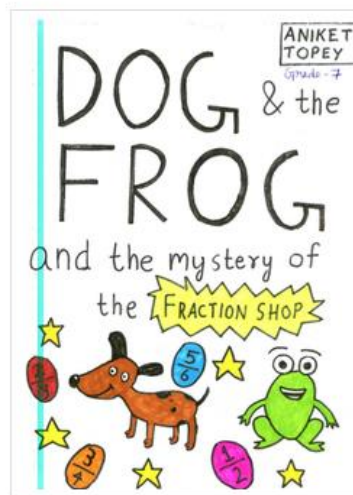


Investigate 8 puzzles

- Using scrabble tiles how many words can you make 8 letters long? What is the total of the word?
- Can you find 8 countries with the largest population?
- Can you find constellations with 8 stars in them and draw them?
- Using matchsticks or drawing lines – what is the largest Roman Numeral you can make with 8 matchsticks or lines?
- Can you make a picture with 8 lines – some parallel and some perpendicular?
- Can you make up a keep fit routine with 8 different exercise and teach it to someone else?
- If you are 8 years old – how many days, weeks, months is that?
- Can you make a design using Octagons?
- Explore the internet to find some facts about the number 8.

Maths story competition

Why not have a read of some of the stories on www.mathsthroughstories.org



Then have a go at writing one of your own....

Other puzzles to try

Unlucky 13 (ks2)

This is a game for two players. You will need 13 counters, 12 of one colour and one black counter.

Take it in turns to take 1, 2 or 3 counters from the pile. The loser is the person who takes the black counter.

How can you make sure that you always win?



What Shapes are hiding? (ks2)

There are some triangles, squares and hexagons in a bag.



If the total number of sides in the bag is 48, how many of each shape could there be?

How do you know you have found all possible solutions?

sum mistake here . . .

Take a look at this 'sum' :

$$93 + 14 = 57$$

As you can see, it's completely wrong! But if you rearrange the digits, you can make a sum which is correct :

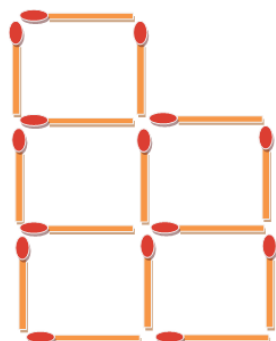
$$54 + 19 = 73$$

Now look at the four 'sums' beneath. For each of them, you have to find a way of rearranging the digits to make the sum work :

- a $24 + 81 = 36$
- b $41 + 23 = 55$
- c $62 + 71 = 94$
- d $46 + 31 = 70$

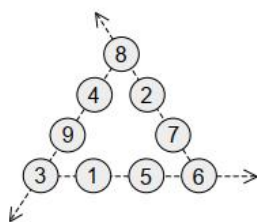
Matchstick Puzzles (ks2)

Remove two matchsticks to make three squares.



four in a row

Sadie has nine counters with the numerals 1, 2, 3 . . . 9 on them. She arranges her counters in a large triangle, like this, with four counters along each side :



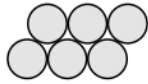
When she adds up the numbers along one side of the triangle she gets 23; the totals along the other two sides turn out to be 15 and 24. Check this for yourself !

Can you find a way of arranging the nine counters so that the total along each side of the triangle is 17 ?

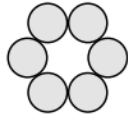
odd totals

- a There are three different ways of adding four odd numbers to get 10, for example $1 + 1 + 3 + 5$. What are the other two ways?
- b Find all the ways of adding eight odd numbers together to get 20.
- c How many ways are there of getting 15 by adding six odd numbers ?

counter move



First of all, get 6 counters of the same kind and arrange them in a shape like the one above. Can you find a way of moving just three of the coins so that you end up with the shape beneath?



2-digit numbers

- a Write down all the 2-digit numbers where one digit is 8 more than the other; how many are there ?
- b Now write down all the 2-digit numbers where one digit is 7 more than the other; how many are there this time ?
- c What happens with 2-digit numbers where the digits differ by 6 ?