Year 5 Maths Everywhere – Car conundrums

On a walk, collect sixteen number plates.

BG63 KYT

BF5I TAU

Find someone to play against.
Each player chooses a number plate from the list collected and create two numbers with one decimal place each.
Using the number plates above, you could make 6.3 and 3.6, 5.1 and 1.5.

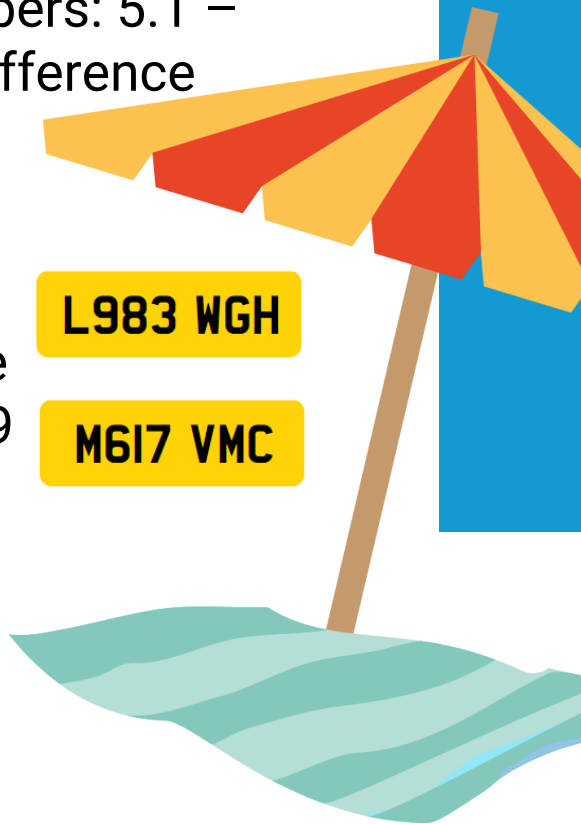
Each player then finds the difference between the smallest and largest numbers: 5.1 – 1.5 = 3.6 and 6.3 – 3.6 = 2.7. This means that 3.6 wins as is it the biggest difference and gets 1 point. If the answers are both the same in a round then 0.5 of a point is added.
The player with the most points after ten rounds is the winner.

Play the game again and use registration plates with three digits and use the digits to make numbers with two decimal places. For example, 9.83 and 3.89 and 6.17 and 7.16.

L983 WGH

M617 VMC

When you are subtracting decimals to find the biggest difference you might need to use place value to regroup the tenths into ones.



Herts for Learning

Year 5 Maths Everywhere – Envelopes

Use a variety of envelopes that come through your letterbox.

Estimate both the area and perimeter of each envelope to the nearest centimetre by writing on the back. Measure them accurately using a ruler or draw 1cm squares to see how close your estimate was to the actual perimeter and area.

Put two envelopes together without overlapping them to make a rectilinear shape. Estimate the perimeter of the shape and then measure it to find the actual perimeter.

Rearrange the envelopes to make the largest and the smallest perimeter. Will the area of each combined (compound or composite) shape that you have made be the same or different? Why?

Perimeter - the distance around the outside of a 2D shape.
Area - the space the envelope(s) covers which here can be measured in square mm/cm (^{2}).

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Year 5 Maths Everywhere – Dicey addition

You will need a partner to play this game with.

Each player rolls a dice six times and uses the numbers rolled as digits to make two, 3-digit numbers.
The aim is to get closer to a sum of 1000 than the other player.
The player with the closest sum wins a point.

With six dice, what are the lowest and highest totals you can make by adding two, 3-digit numbers?

Now roll the dice eight times and create two, 4-digit numbers.
How close to 10,000 can you get?
Repeat the process to get as close as you can.
With eight dice, what are the lowest and highest totals that you can make by adding two 4-digit numbers?

Remember to use the most efficient method when you are adding.
564 added to 321 could be added mentally and would not need the column method.

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Year 5 Maths Everywhere – Dicey difference

Find a partner for the game.
Take it in turns to roll a dice twice.
Then fill in the missing boxes in the calculations below with the number rolled.

600☐ - 599☐ =

This could become 600**4** – 599**5** =

Count on from the smaller number to the larger number.

For the example above, this might be:

- 5996, 5997, 5998, 5999, 6000, 6001, 6002, 6003, 6004
- or add **5** to get from 5995 to 6000 and then **4 more** to get to 6004;
- or add **5** to each number to keep the **difference equal** to make the calculation 6009 - 6000

The difference between 6004 and 5995 is 9 so score 9 points.

Keep a running score of the amounts that you have counted on.
The first person to reach 50 wins.

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Year 5 Maths Everywhere – Radical remainders

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Make a 100 square like this and then find someone to play against.
Take it in turns to choose a number and roll the dice.
If your 2-digit number divides exactly by the number on the dice then you win a point.
For example, if your chosen number was 21 and the number on the dice was 3 then you would get a point because 21 divides by 3 exactly 7 times.

Cross off any numbers used as you go because they are now out of the game.
The first player to ten points wins.

Look at the numbers used in the game. Which numbers would only divide exactly by one and themselves? (prime numbers)

Play again. But this time keep a running total of remainders.
The winner now being the first to get 50.

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