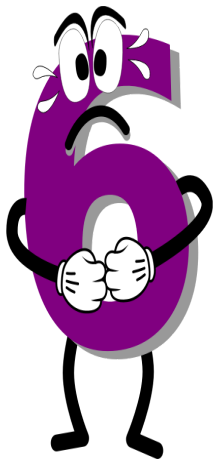# Mathematics Activities for Summer 2022

'Why is six afraid of seven?'
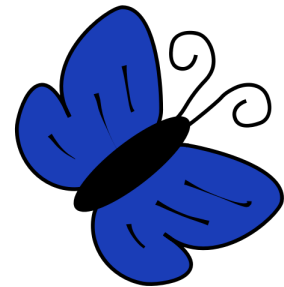
Because seven ate nine

'Which snakes are good at Maths?'

Adders

'What is a butterfly's favourite subject?'

Mothematics

'Mathematics is the most beautiful and most powerful creation of the human spirit.' - **Stefan Banach**

BRIGHTON GIRLS
GDST

Week 1

1. 1064 + 956 =
2. 384 – 7 =
3. 56 ÷ 7 =
4. 132 × 2 =
5. 1.43 × 100 =
6. 0.5 × 70 =
7. 810 ÷ 9 =
8. 540 ÷ 6 =
9. 20% of 400 =
10. 75% of 360 =

11. A packet of paper has 180 sheets.

    5 children each take 8 sheets.

    How many sheets of paper are left in the packet?

12. Large pizzas cost £ 7.95 each.

    Small pizzas cost £ 5.50 each.

    5 children together buy 2 large and 4 small pizzas.

    They share the cost equally.

    How much does each child pay?

Game idea:

You will need cards numbered 1 to 10 (playing cards will work perfectly).

Choose 4 cards. Use these numbers and the mathematical symbols (+, –, ÷, ×) to make the target number of 24.

Too easy – try doing this against a timer. How fast can you get?

Week 2

1. 365 + 73 =

2. 497 − 274 =

3. 7 × 40 =

4. 96 ÷ 8 =

5. 35000 − 400 =

6. 750 ÷ 50 =

7. 42 × 60 =

8. 2100 ÷ 3 =

9. 25% of 480 =

10. $\frac{3}{4}$ of 60 =

11. Jane's watch says it is five past nine.

    Her watch is fifteen minutes fast.

    What time is it really?

12. What is 413 minutes in hours and minutes?

Game idea:

You will need two dice.

Each player draws a four by four grid and fills it with the numbers 1 to 16 (in any order). Then roll the dice, and cross off the total of the dice each time. The first player to get four in a line wins. (You may not get a winner every time - can you think why?)

A slightly different version to get a winner every time: use only the numbers 2 to 12 but with repeats to fill the spaces. Still only cross off one number for each roll of the dice.

Week 3

1. 2673 + 981 =

2. 729 - 375 =

3. 42 ÷ 7 =

4. 571 × 2 =

5. 5.73 × 200 =

6. 0.5 × 40 =

7. 560 ÷ 8 =

8. 2400 ÷ 60 =

9. 10% of 480 =

10. 75% of 640=

11. On Saturday, Laura read $\frac{3}{4}$ of her book.

    On Sunday she read the other 80 pages, to finish her book.

    How many pages are in Laura's book?

12. Jack has £400.

    He spends 30% of his money on a new bike.

   How much does Jack spend on his new bike?

<u>Game idea:</u>

You will need a dice for this game.

Each player takes it in turns to roll the dice and add the score they get to their total. The first player to an agreed target (e.g. 50) wins. However, if at any point a player rolls a one, they lose all the points that they currently have and must start again!
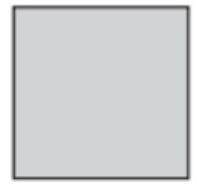
Week 4

1. 769 + 342 =

2. 578 − 319 =

3. 36 ÷ 9 =

4. 75 × 3 =

5. 24 × 40 =

6. 3.52 × 100 =

7. 200 − 67 =

8. 4000 ÷ 8 =

9. $\frac{3}{4}$ of 960 =

10. $\frac{1}{3}$ of 1260 =
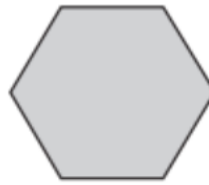
regular hexagon   square

Not actual size

11. The hexagon and square shown above have the same perimeter.

    The length of one side of the hexagon is 8cm.

    Find the area of the square.

12. A square tile measures 20cm by 20cm.

    A rectangular tile measures 3cm longer and 2cm narrower than the square tile.

    What is the difference between the area of the square and rectangular tiles?

Game idea:

Agree a number to start (e.g. 40). Then take it in turns to say a different pair of numbers that multiply to give this target. If someone repeats a pair that has been said, or can't think of a new pair, then they are out. Keep going until everyone is out.

Week 5

1. 274 + 836 =

2. 597 − 249 =

3. 72 ÷ 6 =

4. 15 × 40 =

5. 342 × 2 =

6. 2.45 + 0.37 =

7. 4.95 − 3.12 =

8. 20 % of 550 =

9. $\frac{1}{2}$ of 360 =

10. 0.05 × 1000 =

11. Amy and Janet are doing a sponsored run.
    Janet finished in 53 minutes and 25 seconds.
    Amy finished 8 minutes and 45 seconds before Janet.
    How long did Amy take to do the run?

12. Here is a rule for how long to cook a chicken:

    > 20 minutes plus an extra
    > 40 minutes for every kilogram

    How long would it take to cook a 3 kilogram chicken?

Game idea:

You will need a dice. Each person starts with 999. You take it in turns to roll the dice and then subtract either the number, 10 times the number, or 100 times the number from what you have left. First person to get to zero wins.

Week 6

1. 628 + 583 =

2. 971 − 254 =

3. 72 ÷ 8 =

4. 250 × 4 =

5. 560 ÷ 7 =

6. 900 − 457 =

7. 222 + 379 =

8. 50% of 750 =

9. $\frac{1}{3}$ of 240 =

10. 3.57 − 2.89 =

11. The numbers in this sequence increase by the same amount each time.

	42	49		63

What are the missing numbers?

12. Chloe has the numbers 5, 6 and 9.
She arranges them to make a 2-digit number and a 1-digit number.
Chloe multiplies the two numbers and gets a multiple of 10.
What were her two numbers?

Game idea:

Let a=1, b=2, c=3, d=4 etc. Try to find the highest scoring object you can in any given category. (e.g. if the category is fruit, apple is 1 + 16 + 16 + 12 + 5 = 50, banana is 2 + 1 + 14 + 1 + 14 + 1 = 33. So apple wins)

Week 7

1. 284 + 379 =

2. 327 – 194 =

3. 45 ÷ 9 =

4. 16 × 4 =

5. 25 × 6 =

6. 240 ÷ 8 =

7. 50% of 450 =

8. 10% of 960=

9. 9.45 – 3.99 =

10. $\frac{1}{4}$ of 820 =

11. Sue writes down a square number.

    Dawn writes down a prime number.

    They add their numbers together and get 22.

    What were their numbers?
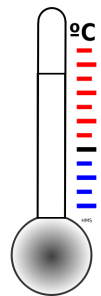
12. This table shows the temperature at 9am on two days in January.

1st January	8th January
+5 °C	–4°C

What is the difference in temperature between 1st January and 8th January?

Game idea:

Someone draws a picture using one colour. They then describe it to everyone else playing, so that they can recreate the picture without seeing it for themselves. At the end you can compare the pictures. (Try to use names of shapes, approximate measurements to make it easier to draw)

Week 8

1.   1000 − 750 =

2.   675 + 248 =

3.   750 ÷ 3 =

4.   27 ÷ 3 =

5.   45 × 6 =

6.   6.75 − 3.51 =

7.   7.25 + 1.90 =

8.   1.23 × 10 =

9.   25% of 680 =

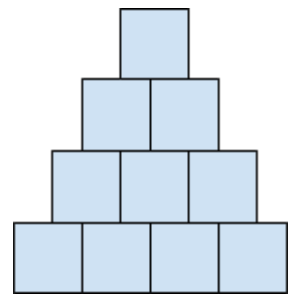10. $\frac{1}{4}$ of 760 =

£1.49   £1.64

11.   John buys one car and one pack of stickers.

He pays with a £10 note.

How much change does John get?

12.   A bag of 5 lemons costs £1.

A bag of 4 oranges costs £1.80.

How much more does one orange cost than one lemon?

Game idea:

You will need a copy of the pyramid grid for each
player and two dice.

Each player puts one number from the list into each
square.

(1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 16, 18, 20, 24, 25, 30, 36)

You then take turns to roll the dice and multiply the numbers
you get. If the answer is in your grid, cross it off. The first player to
cross off the whole grid wins.

Week 9

1. 1000 − 250 =

2. 549 + 632 =

3. 90 ÷ 4 =

4. 25 × 6 =

5. 357 + 769 =
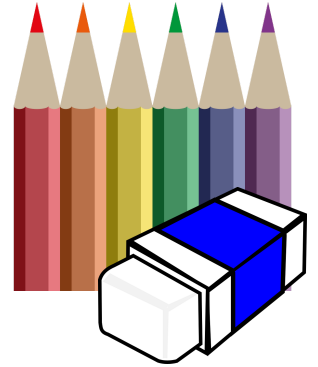
6. 468 − 193 =

7. 50% of 280 =

8. $\frac{3}{4}$ of 480 =

9. 10 − 6.75 =

10. 3 + 4.57 =

11. What number is halfway between 1.4 and 2.1?

12. 6 pencils cost £1.68.

   3 pencils and one rubber cost £1.09.

   How much does one rubber cost?

Game idea:

You will need two or more players, who take it in turns to count up from 1.

Each player can call out one, two or three consecutive numbers, before it moves to the next player to carry on counting up.

The player who ends up saying '21' is out of the game. The game then continues, counting back up from 1 to 21, until there is only one person left. They are the winner.

Answers:

Week 1:
1. 2020;   2. 377;   3. 8;   4. 264;   5. 143;   6. 35;
7. 90;   8. 90;   9. 80;   10. 270;   11. 140;   12. £7.58

Week 2:
1. 438;   2. 223;   3. 280;   4. 12;   5. 34600;   6. 15;
7. 2520   8. 700;   9. 120;   10. 45;   11. 08:50;
12. 6hours 53 minutes

Week 3:
1. 3654;   2. 354;   3. 6;   4. 1142;   5. 1146;   6. 20;
7. 70;   8. 40;   9. 48;   10. 480;   11. 320;   12. £120

Week 4:
1. 1111;   2. 259;   3. 4;   4. 225;   5. 960;   6. 352;
7. 133;   8. 500;   9. 720;   10. 420;   11. 144cm^2
12. 14cm^2

Week 5:
1. 1110;   2. 348;   3. 12;   4. 600;   5. 684;   6. 2.82;
7. 1.83;   8. 110;   9. 180;   10. 50;
11. 44 minutes and 40 seconds;   12. 2hours and 20 minutes;

Week 6:
1. 1211;   2. 717;   3. 9;   4. 1000;   5. 80;   6. 443;
7. 601;   8. 375;   9. 80;   10. 0.68;   11. 35, 42, 49, 56, 63;
12. 95 x 6 = 570 or 96 x 5 = 480

Week 7:
1. 663;   2. 133;   3. 5;   4. 64;   5. 150;   6. 30;
7. 225;   8. 96;   9. 5.46;   10. 205;   11. 9 and 13   12. 9

Week 8:
1. 250;   2. 923;   3. 250;   4. 9;   5. 270;   6. 3.24;
7. 9.15;   8. 12.3;   9. 170;   10. 190;   11. £6.87;   12. 25p

Week 9:
1. 750;   2. 1181;   3. 22.5;   4. 150;   5. 1126;   6. 275;   7.
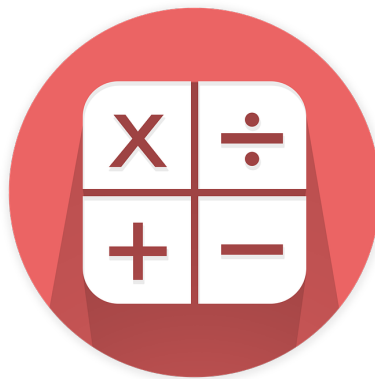140;   8. 360;   9. 3.25;   10. 7.57;   11. 1.75;   12. 25p

Perimeter = distance around the outside

Area = space inside the shape

Prime number = a number that is only in the two times tables. The first few prime numbers are: 2, 3, 5, 7, 11, 13, 17

Square number = a number made by multiplying a number by itself e.g. 4 is square because 2 x 2 = 4

'What did the zero say to the eight?'

Nice belt!

We look forward to meeting you in September.

If you find yourself with nothing to do in the holiday, there are always times tables to learn and games on websites such as https://mathsframe.co.uk that you can play. Maths is everywhere - just look around and have fun!

Brighton Girls Mathematics Department.