1 + 4 = 5
2 + 5 = 12
3 + 6 = 21
8 + 11 = ?

Year 6 to Year 7 Summer Maths PACK

CARDINAL NEWMAN
CATHOLIC SCHOOL

Activity 1

	14	
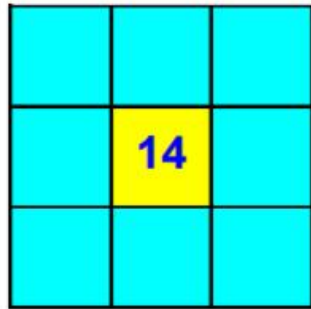
Can you put the numbers 1 to 8 in each of the squares so that each side adds up to the middle number?

Activity 2

M	E	A	N	E	L	K	A	A	E	Y
U	A	X	S	O	V	N	A	S	N	B
B	N	N	P	M	I	L	E	I	E	A
A	N	A	C	R	Q	T	O	I	B	L
S	U	L	T	I	E	A	A	S	I	A
E	T	U	T	I	T	S	B	U	S	N
Q	C	M	E	U	N	Y	S	L	Q	C
U	A	R	B	E	G	L	A	I	E	E
A	T	O	F	U	N	C	T	I	O	N
L	R	F	L	T	Q	A	U	O	S	N
S	A	E	M	E	S	S	N	F	L	U

ALGEBRA	FORMULA
BALANCE	FUNCTION
EQUALS	SOLVE
EQUATION	SUBSTITUTE
EXPRESSION	

Activity 3

1		2	■	3			4
	■	5	6		■	■	
7	8	■		■	9		
■	10			11	■	■	
12	■	■	13			14	■
15			■		■	16	17
	■	18		19	■		
20			■	21			

Enter the answers to the sums below into the matching squares on the numbered grid

Clues Across		Clues Down	
1:	983 - 509	1:	1342 - 896
3:	1134 + 1209	2:	344 divided by 8
5:	1428 divided by 4	3:	Three-quarters of 36
7:	20% of 335	4:	1765 + 1532
9:	53 x 3	6:	1847 x 3
10:	1721 x 2	8:	2nd prime number after 70
13:	4935 - 3112	11:	5678 divided by 2
15:	One third of 759	12:	Seven-eighths of 2552
16:	522 divided by 9	14:	7 x 5
18:	25% of 1180	17:	80% of 1040
20:	1133 + 2542	18:	5 squared
21:	66 x 12	19:	Half of 114

Name:

Activity 4

×	9	10	9	1	3	3	3	2	5	8
8										
7										
8										
1										
2										
7										
3										
7										
7										
10										

Activity 5

×	8	2	7	9
			35	
3		6		
4				36
6				

×	6	2		9
		8		
		16	24	72
		14	21	63

×		8		5
			36	
6	42	48		30
2			8	
	21			

×	7		8	3
	63		72	27
		30		18
2			16	

Activity 6

1. The ratio of k to m is 1 : 2. The ratio of m to n is 3 : 1. Find the ratio k : m : n in its simplest form.

2. A fair coin is flipped. What is the probability of getting heads?

3. An amount was shared in the ratio 1:2. The smallest share was 6. What was the total amount shared?

4. LCM of 4 and 10

5. $2\frac{1}{2}$ as an improper fraction

6. $(4 \times 10^5) - (6 \times 10^1)$
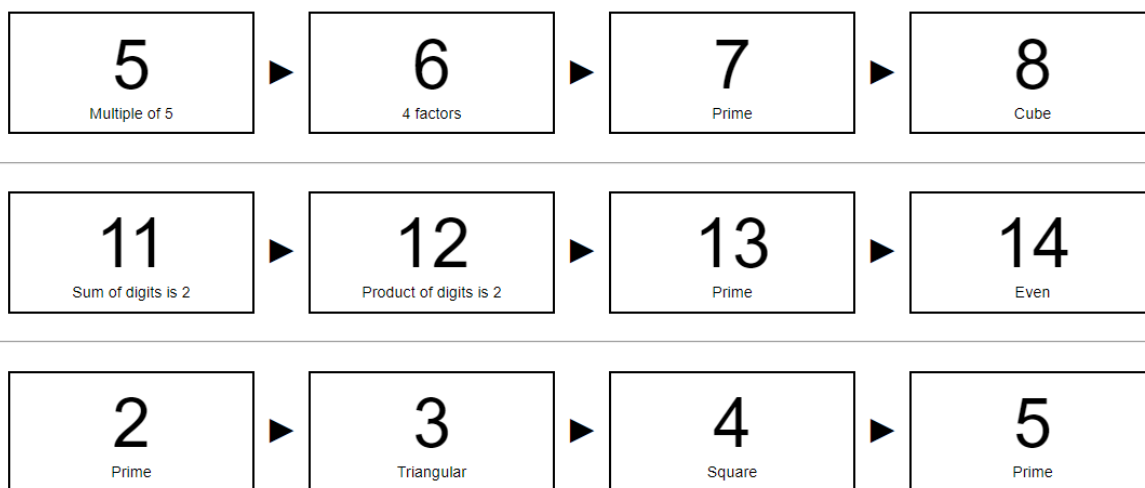
7. Simplify $\frac{5}{45}$

8. Solve:
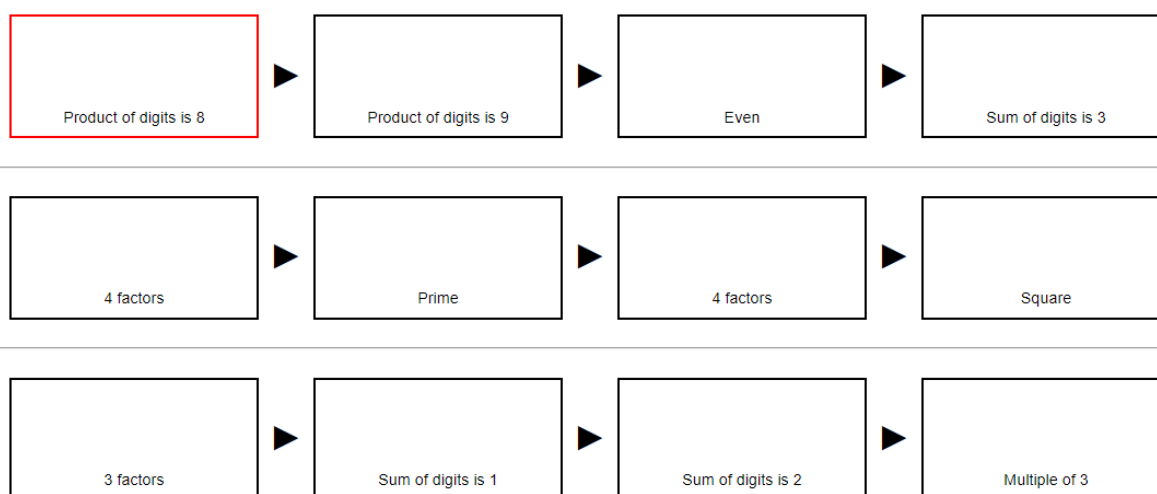$5n + 7 = 37$

9. Double 5.2

Activity 7

Consecutive Numbers game.

Consecutive numbers are numbers that follow one another in order. For this challenge you must find consecutive numbers that satisfy the requirements for each box. An example is done for you
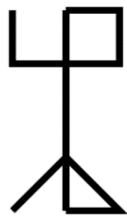
5	6	7	8
Multiple of 5	4 factors	Prime	Cube

11	12	13	14
Sum of digits is 2	Product of digits is 2	Prime	Even

2	3	4	5
Prime	Triangular	Square	Prime

Your turn

Product of digits is 8	Product of digits is 9	Even	Sum of digits is 3

4 factors	Prime	4 factors	Square

3 factors	Sum of digits is 1	Sum of digits is 2	Multiple of 3

Activity 8

Cistercian Numerals:

Can you find the number

Example has been for you

4589

⌐	⊢	⊦	�'\	↗	⌐'	Γ	⊓	⊓
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	2000	3000	4000	5000	6000	7000	8000	9000

Your turn

Find the number:
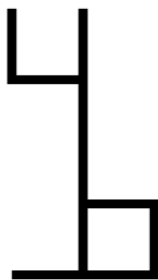
Can you guess how the number 4547 would look?

Activity 9

Countdown

292

| 2 | 6 | 6 | 10 | 25 | 50 |

Find the closest calculation that will get you 292

Activity 10

Description	Rule
Angles in a triangle...	
Angles in a quadrilateral...	
Angles on a straight line...	
Angles around a point...	
Vertically opposite angles...	
Alternate angles...	
Corresponding angles...	
Co-interior angles...	

Activity 11

|	
Write the number 1804 in words.	
A carton of milk costs 57p	Find the cost of three cartons of milk.
120° y	Find y
Sketch the net of a cube	
Calculate 50% of £3	Calculate 10% of £7
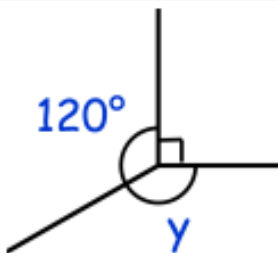
Activity 12

```
S N E D C E F L N X C L Q E C N N O
R Y D G U O O S E T A N I D R O O C
E P T E B G R G C E L N R X S I I E
D B A F O C M R N E C F G E H L T I
N I D O I E U I E E U H S L N L A G
I S G F D F L B R L L S A P E I U O
L E Q U I L A T E R A L E L O B Q E
Y C N E U Q E R F P T T I O F I E N
C T S A N M Q D M S O T I G S I M D
A O E N I O E O U C R T O O S R I L
F R I T L C C S C E O P M O N A E G
R A N O I S S E R P X E S G M I R V
A E C M C K M E I I T C G E E A L L
C C A T H S E I C R E R T A D A T L
T L T V O E S P I L L E C I R C L E
I N C H R R E C E Y R T E M O E G E
O A E S D D A S D H U N D R E D V C
N O G A X E H F O O T I U E L O I A
```

ANGLE	COORDINATES	FACTOR	HEXAGON
AVERAGE	CORRELATION	FIFTY	HUNDRED
BILLION	CUBE	FOOT	INCH
BISECTOR	CUBOID	FORMULA	INTERCEPT
CALCULATOR	CYLINDER	FRACTION	ISOMETRIC
CENTIMETRE	DECIMAL	FREQUENCY	ISOSCELES
CHORD	DIAMETER	GEOMETRY	KITE
CIRCLE	ELLIPSE	GOOGOL	LINE
CIRCUMFERENCE	EQUATION	GOOGOLPLEX	LITRE
COMPASSES	EQUILATERAL	GRADIENT	
CONE	EXPRESSION	HALF	

Activity 13 – colouring in poster
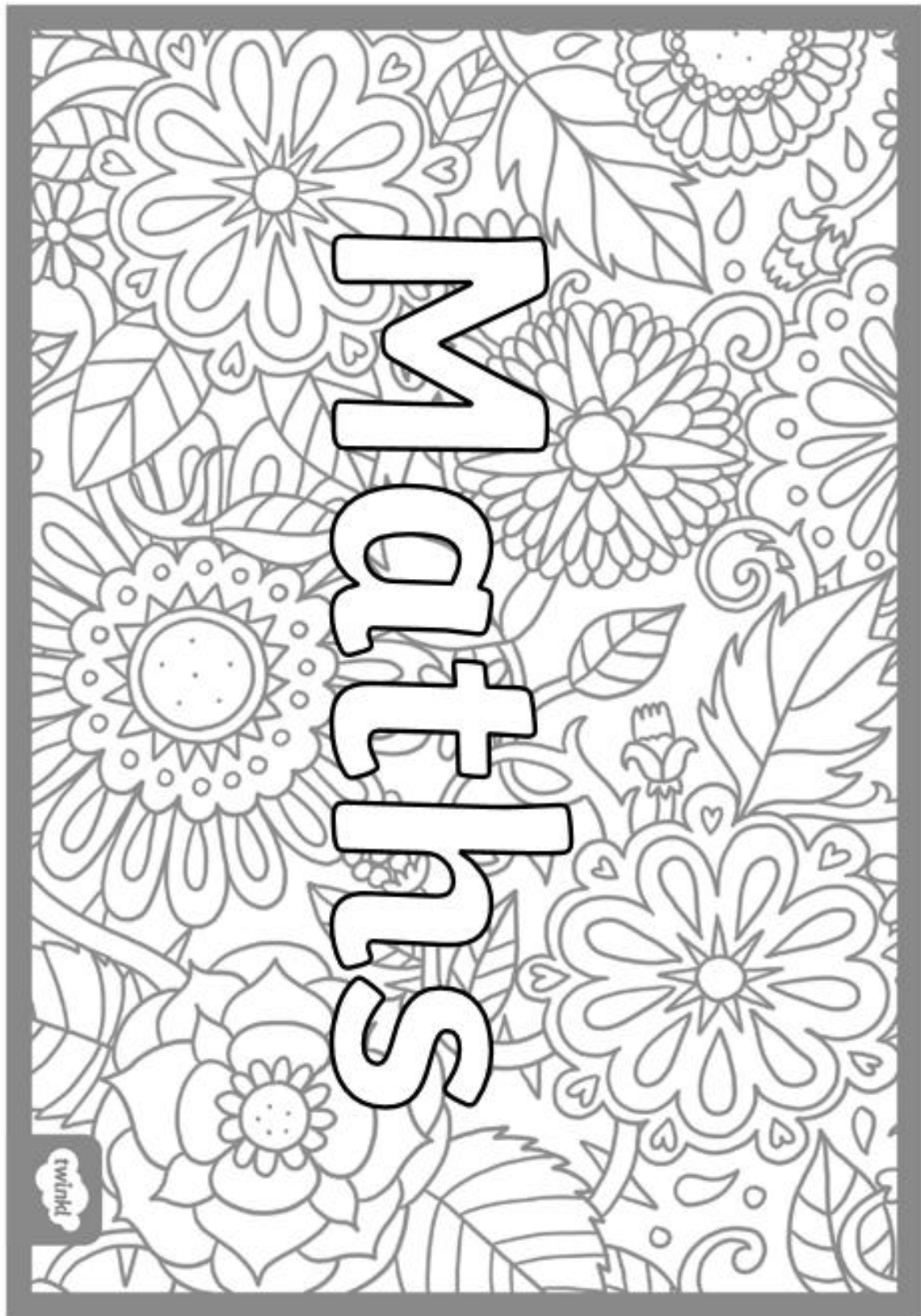
Activity 14
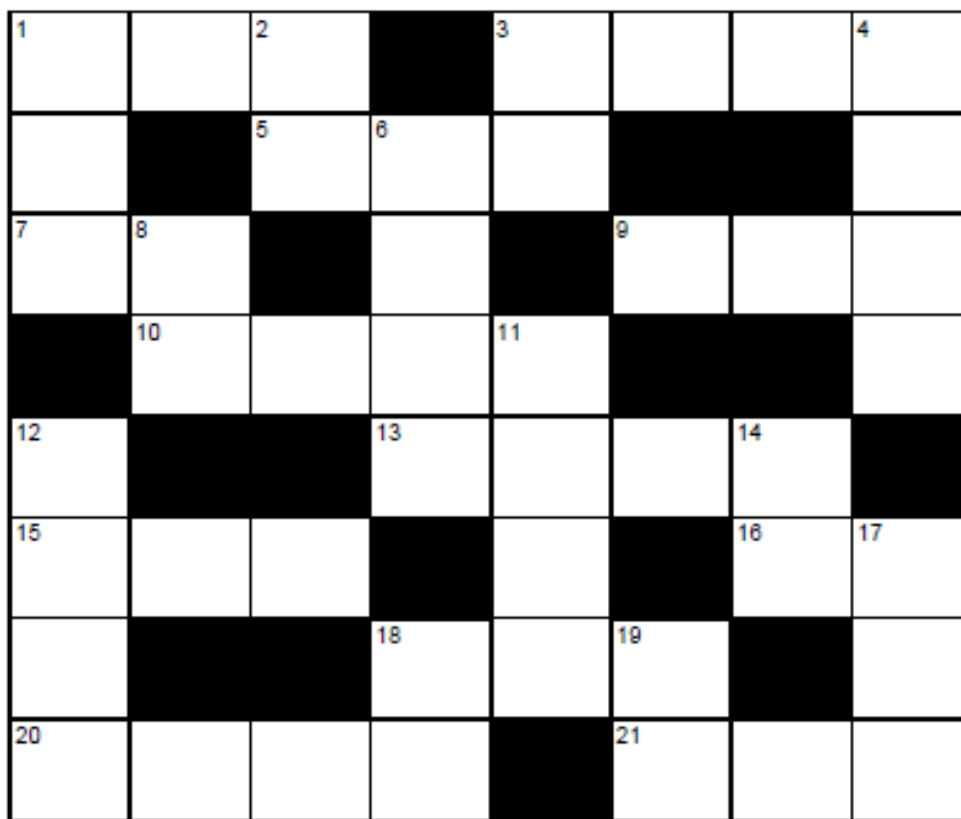
¹		²	■	³			⁴
	■	⁵	⁶		■	■	
⁷	⁸	■		■	⁹		
■	¹⁰			¹¹	■	■	
¹²	■		¹³			¹⁴	■
¹⁵			■		■	¹⁶	¹⁷
	■		¹⁸		¹⁹	■	
²⁰				■	²¹		

Enter the answers to the sums below into the matching squares on the numbered grid

Clues Across

1:	50% of 982
3:	2518 + 2135
5:	79 x 3
7:	Three-quarters of 128
9:	513 + 429
10:	153 x 11
13:	2668 + 3174
15:	2022 divided by 3
16:	179 - 114
18:	75% of 912
20:	1739 + 2245
21:	Two-thirds of 846

Clues Down

1:	Half of 878
2:	Square root of 144
3:	376 divided by 8
4:	7543 - 3915
6:	737 x 5
8:	First prime number after 60
11:	7677 - 3789
12:	7346 divided by 2
14:	156 divided by 6
17:	Four-fifths of 730
18:	8 squared
19:	90% of 50

Activity 15

Long Multiplication Practice – 3 Digits × 2 Digits

1.

		1	6	1
×			2	3

2.

		2	3	2
×			2	6

3.

		6	1	4
×			1	8

4.

		9	6	9
×			9	5

5.

		7	4	0
×			9	6

6.

		3	6	2
×			5	8

7.

		3	0	5
×			7	1

8.

		3	7	0
×			6	4

9.

		5	8	4
×			1	5

10.

		8	5	1
×			8	9

11.

		7	4	9
×			9	8

12.

		4	8	2
×			2	3

13.

		6	4	6
×			1	0

14.

		7	0	9
×			1	7

15.

		9	1	4
×			5	7

16.

		7	1	8
×			4	5

Activity 16

Short Division Practice 4 Digits Divided By 1 Digit

Divide the numbers up to four digits by a one-digit number using the formal written method of short division. Some of the answers will have a remainder.

1.

2 | 2 9 5 2

2.

4 | 6 8 0 8

3.

4 | 9 6 7 2

4.

6 | 9 7 9 2

5.

8 | 5 0 9 6

6.

9 | 1 3 3 2

7.

8 | 9 6 8 8

8.

5 | 3 4 6 2

9.

4 | 7 6 4 3

10.

7 | 6 9 2 1

11.

9 | 4 5 3 2

12.

3 | 8 6 5 3

13.

7 | 3 4 3 6

14.

9 | 6 4 3 7

River Riding

NOTE: In each section, do NOT connect the last point back to first point.

(X, Y)	(X, Y)	(X, Y)	(X, Y)
☐ (0, 1)	☐ (4, 17)	☐ (3, 18)	☐ (9, 5)
☐ (2, 3)	☐ (5, 16)	☐ (2, 17)	☐ (9, 19)
☐ (4, 3)	☐ (6, 17)	☐ (1, 18)	☐ (17, 6)
☐ (3, 2)	(STOP)	(STOP)	☐ (9, 6)
☐ (4, 1)			(STOP)
(STOP)	☐ (8, 5)	☐ (14, 5)	
	☐ (9, 19)	☐ (14, 6)	☐ (2, 16)
☐ (24, 17)	(STOP)	(STOP)	☐ (3, 15)
☐ (24, 18)			☐ (4, 16)
☐ (23, 19)	☐ (20, 1)	☐ (12, 1)	(STOP)
☐ (22, 19)	☐ (22, 3)	☐ (11, 2)	
☐ (21, 18)	☐ (24, 3)	☐ (12, 3)	☐ (20, 1)
☐ (21, 17)	☐ (23, 2)	☐ (10, 3)	☐ (19, 2)
☐ (22, 16)	☐ (24, 1)	☐ (8, 1)	☐ (20, 3)
☐ (23, 16)	☐ (25, 2)	☐ (7, 2)	☐ (18, 3)
☐ (24, 17)	(STOP)	☐ (8, 3)	☐ (16, 1)
(STOP)		☐ (6, 3)	(STOP)
	☐ (7, 3)	☐ (4, 1)	
☐ (14, 11)	☐ (3, 5)	(STOP)	Now color your picture
☐ (14, 18)	☐ (23, 5)		
☐ (21, 6)	☐ (22, 3)		
☐ (17, 6)	(STOP)		
(STOP)			
☐ (12, 1)			
☐ (14, 3)			
☐ (16, 3)			
☐ (15, 2)			
☐ (16, 1)			
(STOP)			

River Riding

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0																					
1																					
2																					
3																					
4																					
5																					
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Here are some maths jokes to keep you entertained over the Summer

What's a math teacher's favourite kind of tree?

Geometry.

Parallel lines have so much in common

 ... It's a shame they'll never meet.

I had an argument with a 90° angle.

It turns out it was right.

Did you hear about the over-educated circle?

It has 360°!

What shape is usually waiting for you inside a Starbucks?

A line.

Why doesn't anybody talk to circles?

Because there's no point.

Why was the obtuse triangle always upset?

Because it's never right.

What do geometry teachers have decorating their floor?

Area rugs!