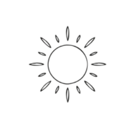
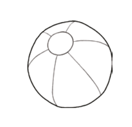
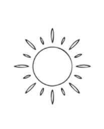
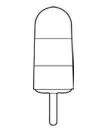
Year 6 Summer-Themed

Maths Activity Booklet

Name: _____

Place Value Code Breaker

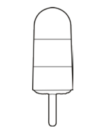
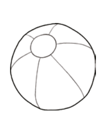
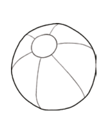
									
3	**1**	**6**	**5**	**4**	**0**	**8**	**7**	**2**	**9**

What is the number						rounded to the nearest 10?

Answer:________________________

What is the number						rounded to the nearest 100?

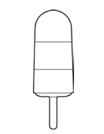
Answer:________________________

What is the number						rounded to the nearest 1000?

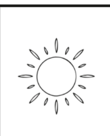
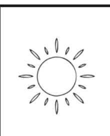
Answer:________________________

What is the number					written in Roman numerals?

Answer:________________________

What is the number					written in Roman numerals?

Answer:________________________

What is the number					written in Roman numerals?

Answer:________________________

Calculations Code Breaker

Solve the calculations and use the code breaker to spell out a summer-themed joke. The joke will read down the tables.

A	B	C	D	E	F	G	H	I	J	K	L	M
6	15	21	5	13	24	18	7	12	1	25	19	9

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
22	16	11	26	2	17	20	3	10	8	14	23	4

	Answer	Letter
$\frac{2}{5}$ of 20		
$\frac{1}{7}$ of 49		
$\frac{1}{2}$ of 46		

	Answer	Letter
$\frac{1}{6}$ of 30		
$\frac{4}{5}$ of 20		

	Answer	Letter
$\frac{5}{6}$ of 18		
$\frac{2}{6}$ of 18		
$\frac{2}{3}$ of 33		
$\frac{1}{4}$ of 24		
$\frac{1}{2}$ of 44		
$\frac{1}{5}$ of 30		
$\frac{1}{2}$ of 34		

	Answer	Letter
$\frac{1}{8}$ of 24		
$\frac{1}{3}$ of 51		
$\frac{1}{3}$ of 39		

	Answer	Letter
$\frac{1}{4}$ of 68		
$\frac{1}{5}$ of 15		
$\frac{2}{5}$ of 55		

	Answer	Letter
$\frac{1}{2}$ of 42		
$\frac{1}{10}$ of 20		
$\frac{1}{4}$ of 52		
$\frac{1}{9}$ of 54		
$\frac{3}{5}$ of 15		?

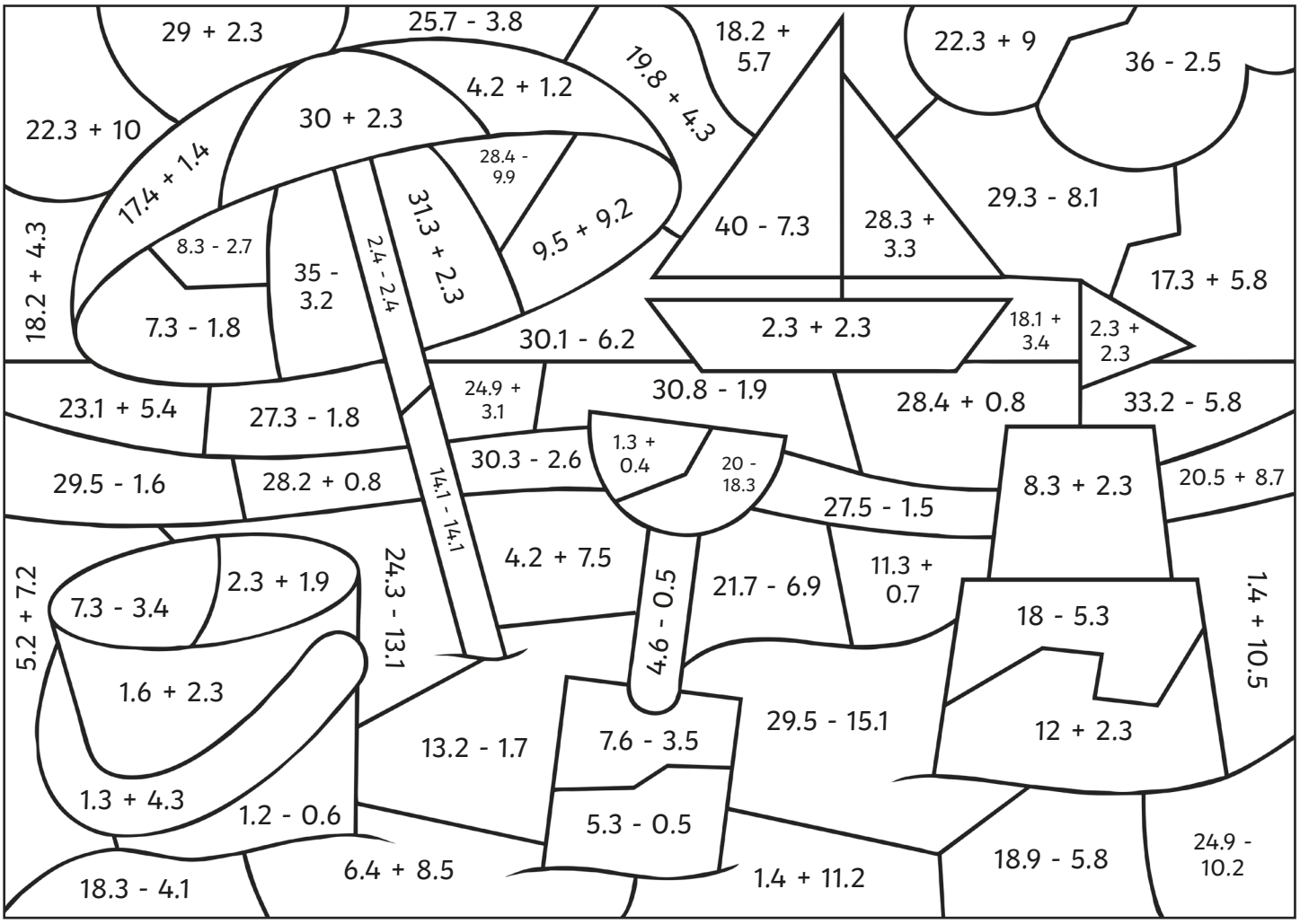
	Answer	Letter
$\frac{1}{2}$ of 30		
$\frac{1}{8}$ of 104		
$\frac{1}{3}$ of 63		
$\frac{1}{2}$ of 12		
$\frac{1}{3}$ of 9		
$\frac{1}{5}$ of 85		
$\frac{1}{5}$ of 65		

	Answer	Letter
$\frac{2}{3}$ of 30		
$\frac{1}{3}$ of 21		
$\frac{1}{3}$ of 39		
$\frac{1}{2}$ of 46		

	Answer	Letter
$\frac{1}{3}$ of 33		
$\frac{1}{4}$ of 52		
$\frac{1}{8}$ of 104		
$\frac{1}{2}$ of 38		

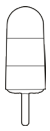
Colour by Calculation

Use the key to colour the summer-themed picture.



Grey:	Red:	Orange:	Yellow:	Green:	Light Blue:	Dark Blue:	White:
0	1 – 5	5.1 – 10	10.1 – 15	15.1 – 20	20.1 – 25	25.1 – 30	30.1 – 35

Written Methods of Multiplication and Division Code Breaker

									
2	4	8	6	1	0	5	9	3	7

1.				×		

Answer: _____

2.				×		

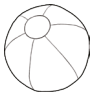
Answer: _____

3.					÷	

Answer: _____

4.					÷	

Answer: _____

5.					÷	

Answer: _____

Summertime Addition and Subtraction Maths Mosaic

Solve the calculations to reveal the hidden picture. Each answer has a special colour.

green = 7200 | **pink** = 7500 | **black** = 7800 | **blue** = 8100 | **yellow** = 8400

2650 + 5450	9972 - 1872	1788 + 6612	5589 + 2811	8369 + 31	9959 - 1559	1528 + 6872	757 + 7343	7619 + 481
2107 + 5993	6475 + 1925	4660 + 3740	2461 + 5939	8417 - 17	958 + 7442	6194 + 2206	9859 - 1459	9526 - 1426
5959 + 1841	8263 - 463	1171 + 6629	715 + 7085	4865 + 2935	3101 + 4699	5518 + 2282	1036 + 6764	4399 + 3401
9584 - 1184	7554 + 246	6999 + 801	677 + 7123	5590 + 2810	8688 - 888	9892 - 2092	333 + 7467	9860 - 1460
4334 + 4066	1577 + 6823	1920 + 5880	1787 + 6613	5588 + 2812	8370 + 30	8360 - 560	4335 + 4065	1576 + 6824
9270 - 870	7308 + 1092	3886 + 4514	8703 - 303	6238 + 2162	7083 + 1317	3591 + 4809	1162 + 7238	4200 + 4200
7787 + 613	7787 + 613	3886 + 4514	8703 - 303	7308 + 1092	7787 + 613	3073 + 5327	7456 + 944	6726 + 1674
3979 + 4421	8434 - 34	5927 + 1573	5124 + 2376	6329 + 1171	8233 - 733	8899 - 1399	3980 + 4420	9335 - 935
6967 + 233	3887 + 4513	8704 - 304	1042 + 6458	1964 + 5536	8825 - 1325	5589 + 2811	8360 + 40	2546 + 4654
1827 + 5373	658 + 6542	6475 + 1925	4660 + 3740	2461 + 5939	8417 - 17	958 + 7442	3043 + 4157	4380 + 2820

Summer Number Puzzles

I collect some shells on the beach.

I multiply the number of shells I have by 7.

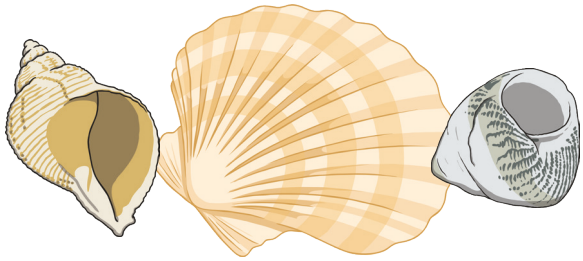
I then subtract 7,

multiply by 9,

and divide by 2.

I end with the number 1953.

How many shells did I collect?



I decorate my sandcastle with flags.

I multiply the number of flags I use by 26.

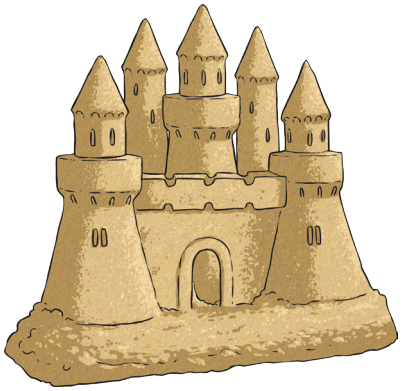
I then add 132,

multiply by 4,

and divide by 10.

I end with the number 344.

How many flags did I use to decorate my sandcastle?



I practise cartwheels on the sand.

I multiply the number of cartwheels I do by 38.

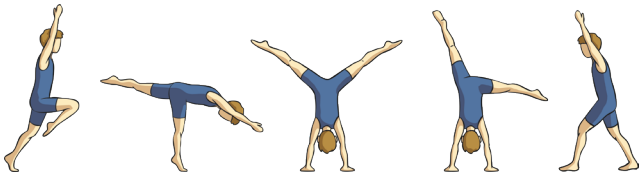
I then subtract 83,

multiply by 100,

and divide by 4.

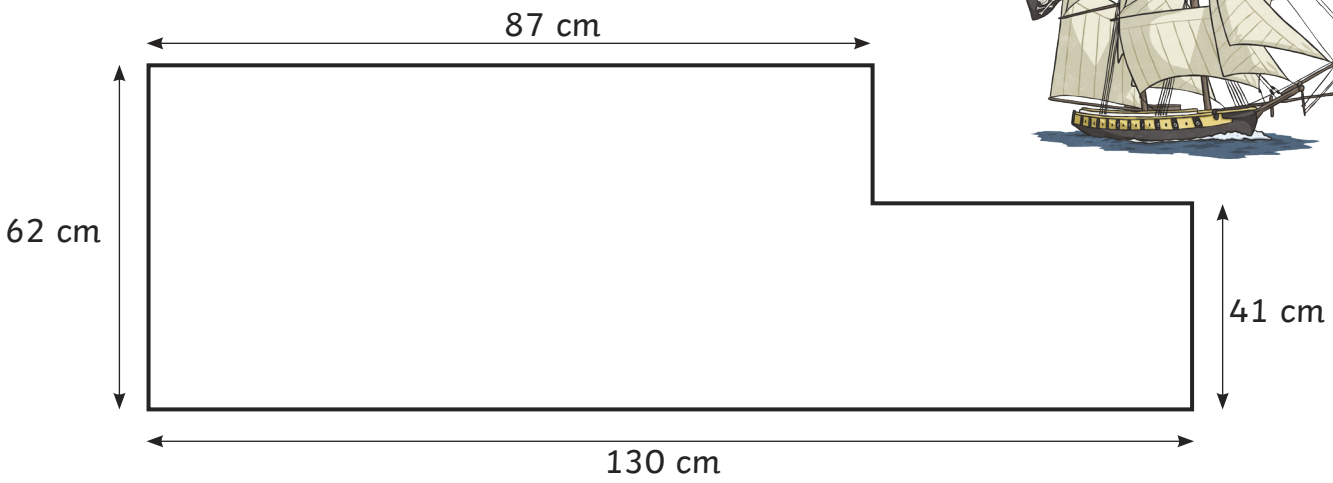
I end with the number 19 775.

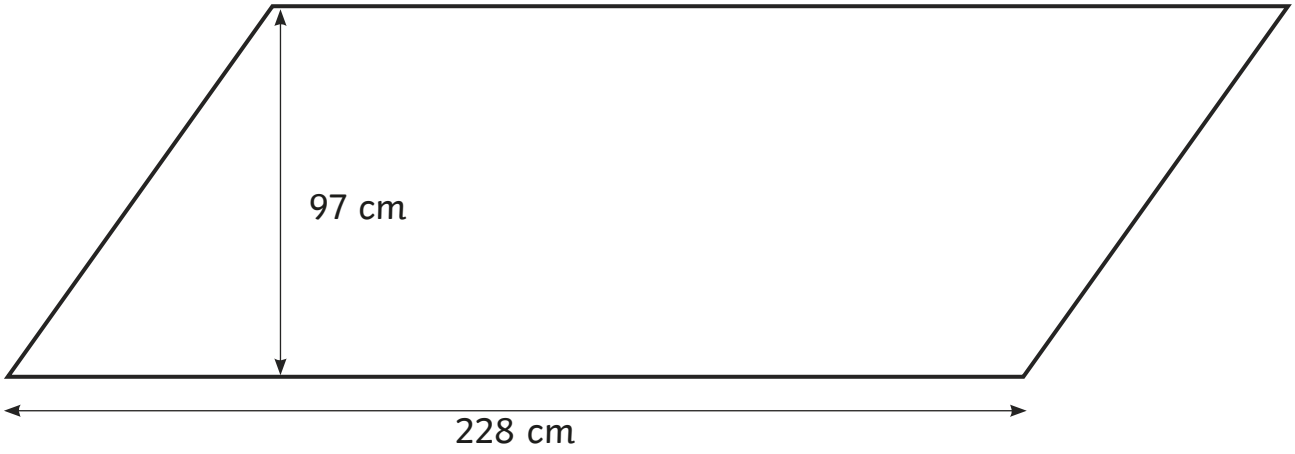
How many cartwheels did I do?

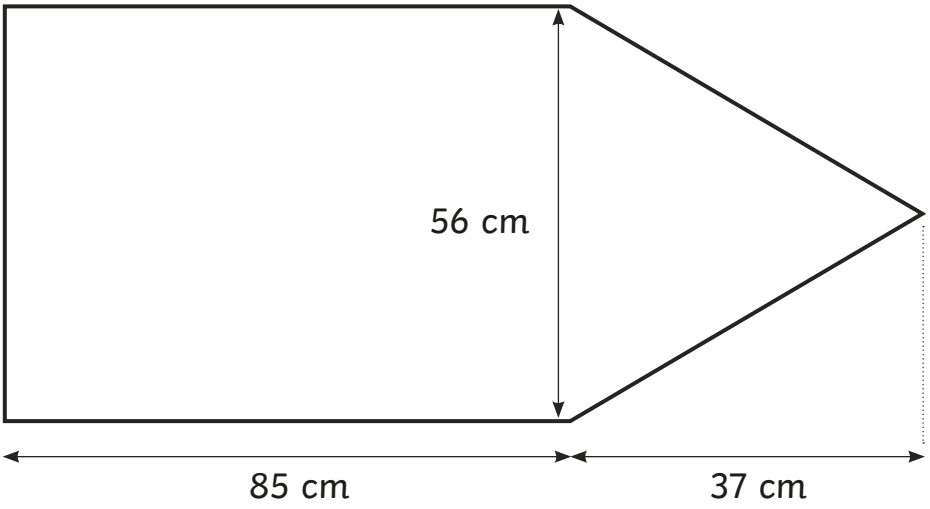


Pirate Flags

Use the dimensions to calculate the area of each pirate flag.
(Not drawn to scale)







Adding and Subtracting Fractions Board Game

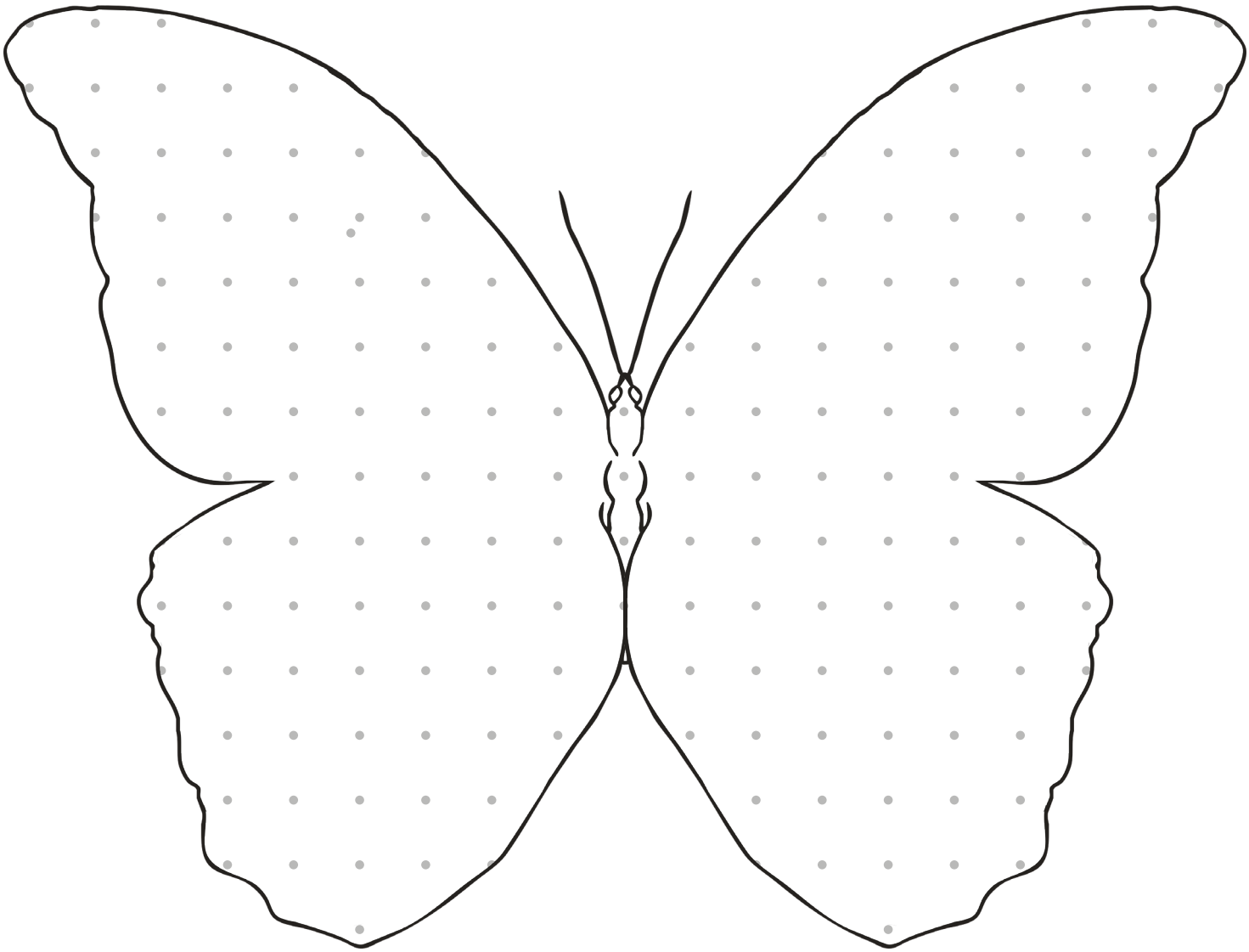
Instructions

- Each player must choose a space to start from and place their counter on it.
- The first player rolls the dice and moves their counter clockwise around the board.
- They must answer the question in that square, find the answer on the correct shell and cover it over.
- The next player will take their turn.
- If a player lands on a square where the answer has already been covered, they must miss a go.
- The winner is the player who has covered the most shells.

$\frac{2}{8} + \frac{1}{3}$	$1\frac{3}{9} - \frac{2}{5}$	$\frac{2}{3} + \frac{6}{9}$	$1\frac{9}{10} - \frac{2}{3}$	$\frac{1}{2} + \frac{2}{3}$
$\frac{2}{10} + \frac{3}{5}$				$1\frac{1}{8} - \frac{5}{6}$
$\frac{2}{8} + \frac{1}{2}$				$\frac{1}{2} + \frac{7}{8}$
$1\frac{4}{10} - \frac{1}{3}$				$1\frac{5}{12} - \frac{1}{2}$
$\frac{4}{10} + \frac{4}{5}$	$1\frac{1}{2} - \frac{1}{4}$	$\frac{1}{6} + \frac{8}{12}$	$1\frac{3}{4} - \frac{2}{3}$	$\frac{2}{6} + \frac{5}{9}$

Butterfly Pattern Symmetry

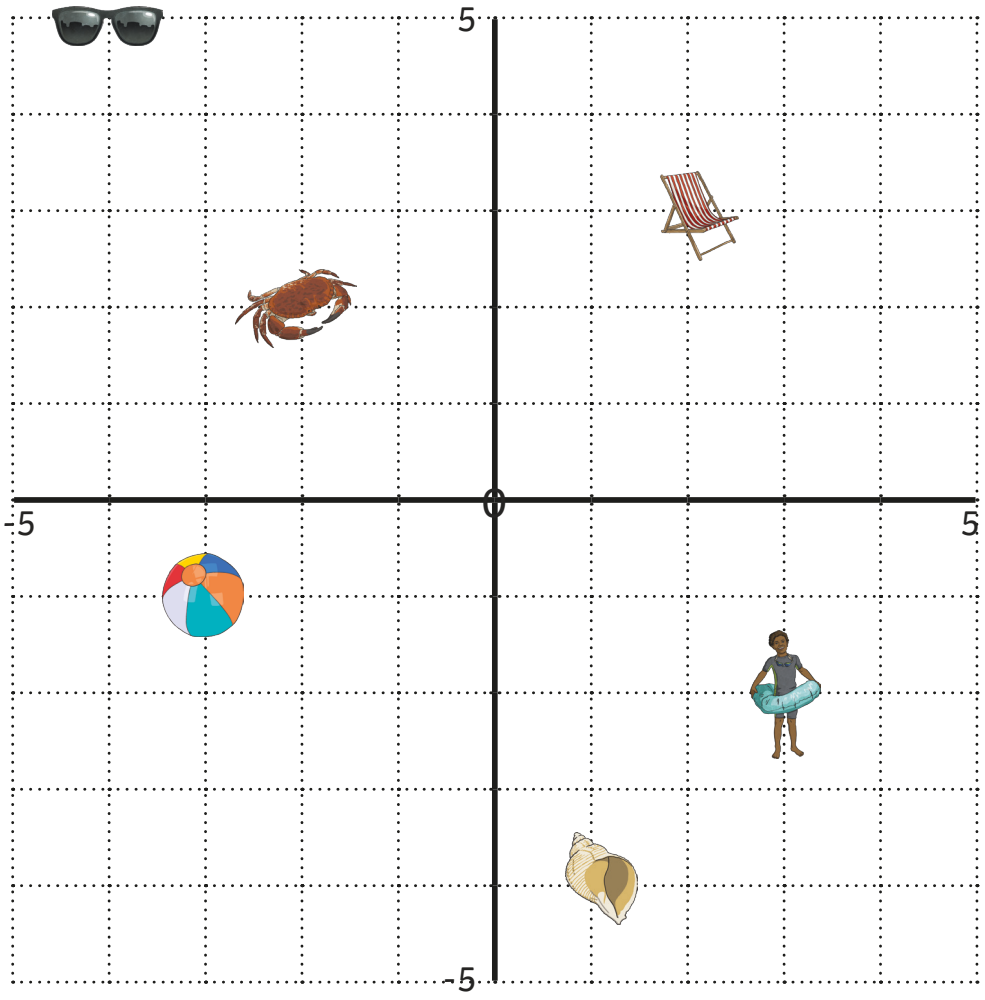
Draw a symmetrical pattern on this butterfly using different regular and irregular polygons.



Which polygons did you use in your symmetrical design?

Summer-Themed Coordinate Translations

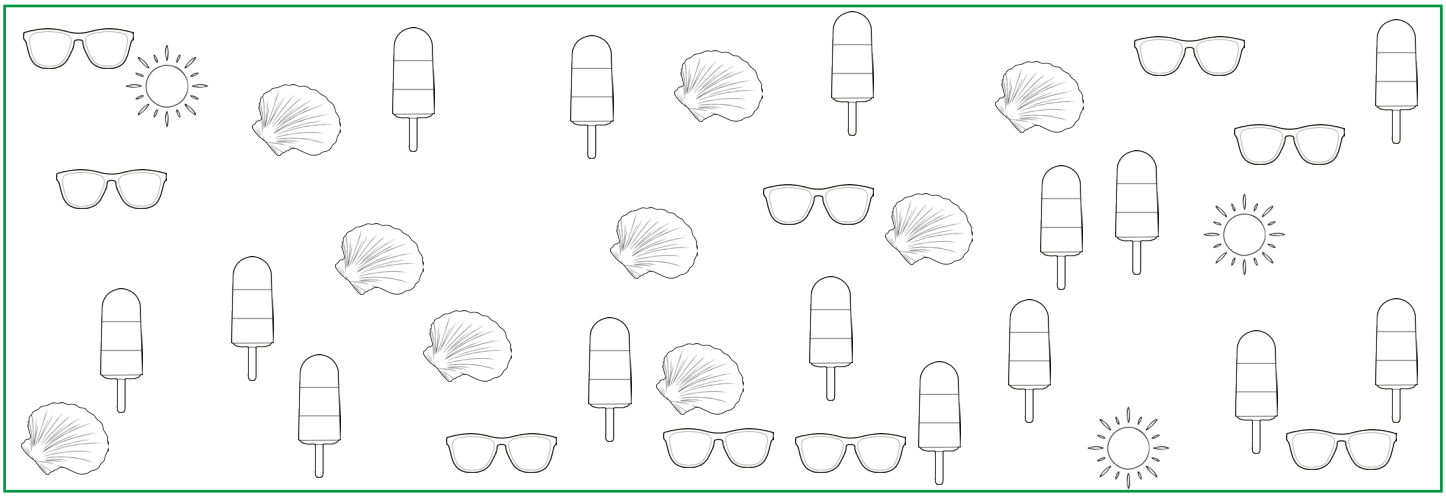
Write the coordinates of the summer-themed objects. Translate them and write the new coordinates.



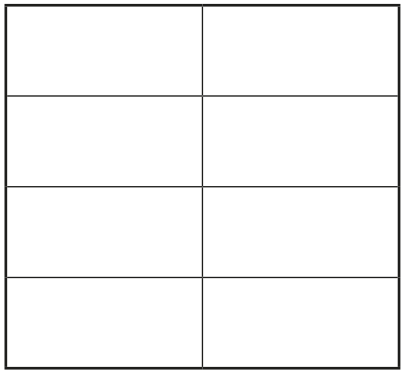
Object	Starting Coordinate	Translation	Finishing Coordinate
		Right 4, Up 6	
		Right 5, Down 7	
		Left 4, Down 3	
		Left 1, Up 2	
		Right 3, Down 1	
		Right 1, Up 2	

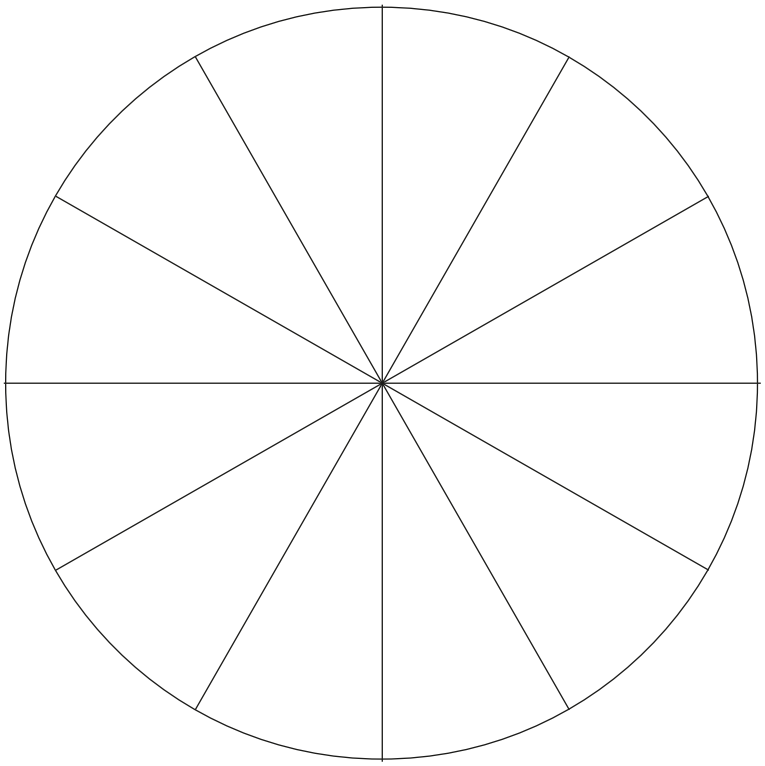
Summer Holiday Pie Chart

Count the summer-themed objects carefully. Represent the results as a pie chart.



Key





Item	Pie Chart Colour	Frequency	Fraction	Number of Pie Chart Segments
Sun				
Sea shell				
Ice lolly				
Sunglasses				

Summer Holiday Activities Board Game

You will need:

• counters

• a dice

• a pencil

Instructions

Each player starts the game with 1000 points.

The first player will throw the dice. The number rolled shows how many squares that player can move their counter around the board.

When the player lands on a square, they must add or subtract the points on that square to or from their score.

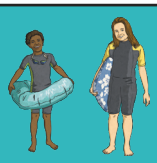
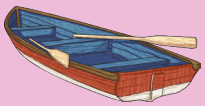
The next player will then take their turn to roll.

When a player reaches the finish, the player with the most points is the winner.

Keep track of your score here:

Name:	**Name:**	**Name:**	**Name:**
1000	1000	1000	1000

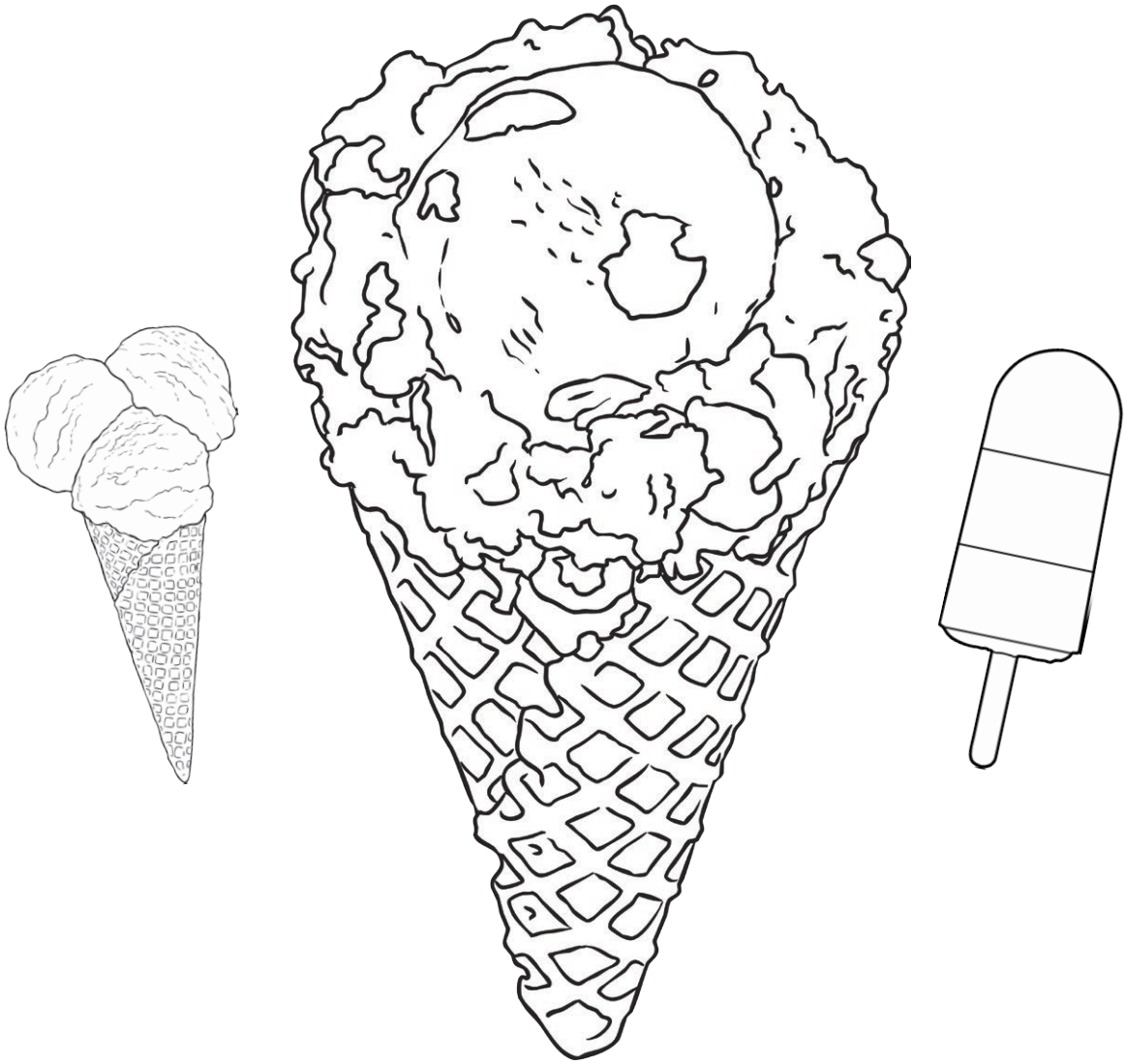
Summer Holiday Activities Board Game

START	 + 122	 - 158			
		 + 91	 - 117	 + 153	 - 74
FINISH					 + 206
 + 101	 - 48	 + 122	 - 159		 - 139
			 + 106		 + 142
 - 131	 + 147	 - 113	 + 164		 - 108
 + 178					 + 161
 -42	 + 169	 - 96	 + 124	 - 123	 + 187

Year 6 Summer-Themed

Maths Activity Booklet

Answers



Place Value Code Breaker

									
3	1	6	5	4	0	8	7	2	9

What is the number						rounded to the nearest 10?

Answer: **62 550**

What is the number						rounded to the nearest 100?

Answer: **30 200**

What is the number						rounded to the nearest 1000?

Answer: **50 000**

What is the number					written in Roman numerals?

Answer: **MMMCCLVII**

What is the number					written in Roman numerals?

Answer: **MDXIV**

What is the number					written in Roman numerals?

Answer: **MMLXVI**

Calculations Code Breaker

Solve the calculations and use the code breaker to spell out a summer-themed joke. The joke will read down the tables.

A	B	C	D	E	F	G	H	I	J	K	L	M
6	15	21	5	13	24	18	7	12	1	25	19	9

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
22	16	11	26	2	17	20	3	10	8	14	23	4

	Answer	Letter
$\frac{2}{5}$ of 20	8	W
$\frac{1}{7}$ of 49	7	H
$\frac{1}{2}$ of 46	23	Y

	Answer	Letter
$\frac{1}{6}$ of 30	5	D
$\frac{4}{5}$ of 20	16	O

	Answer	Letter
$\frac{5}{6}$ of 18	15	B
$\frac{2}{6}$ of 18	6	A
$\frac{2}{3}$ of 33	22	N
$\frac{1}{4}$ of 24	6	A
$\frac{1}{2}$ of 44	22	N
$\frac{1}{5}$ of 30	6	A
$\frac{1}{2}$ of 34	17	S

	Answer	Letter
$\frac{1}{8}$ of 24	3	U
$\frac{1}{3}$ of 51	17	S
$\frac{1}{3}$ of 39	13	E

	Answer	Letter
$\frac{1}{4}$ of 68	17	S
$\frac{1}{5}$ of 15	3	U
$\frac{2}{5}$ of 55	22	N

	Answer	Letter
$\frac{1}{2}$ of 42	21	C
$\frac{1}{10}$ of 20	2	R
$\frac{1}{4}$ of 52	13	E
$\frac{1}{9}$ of 54	6	A
$\frac{3}{5}$ of 15	9	M?

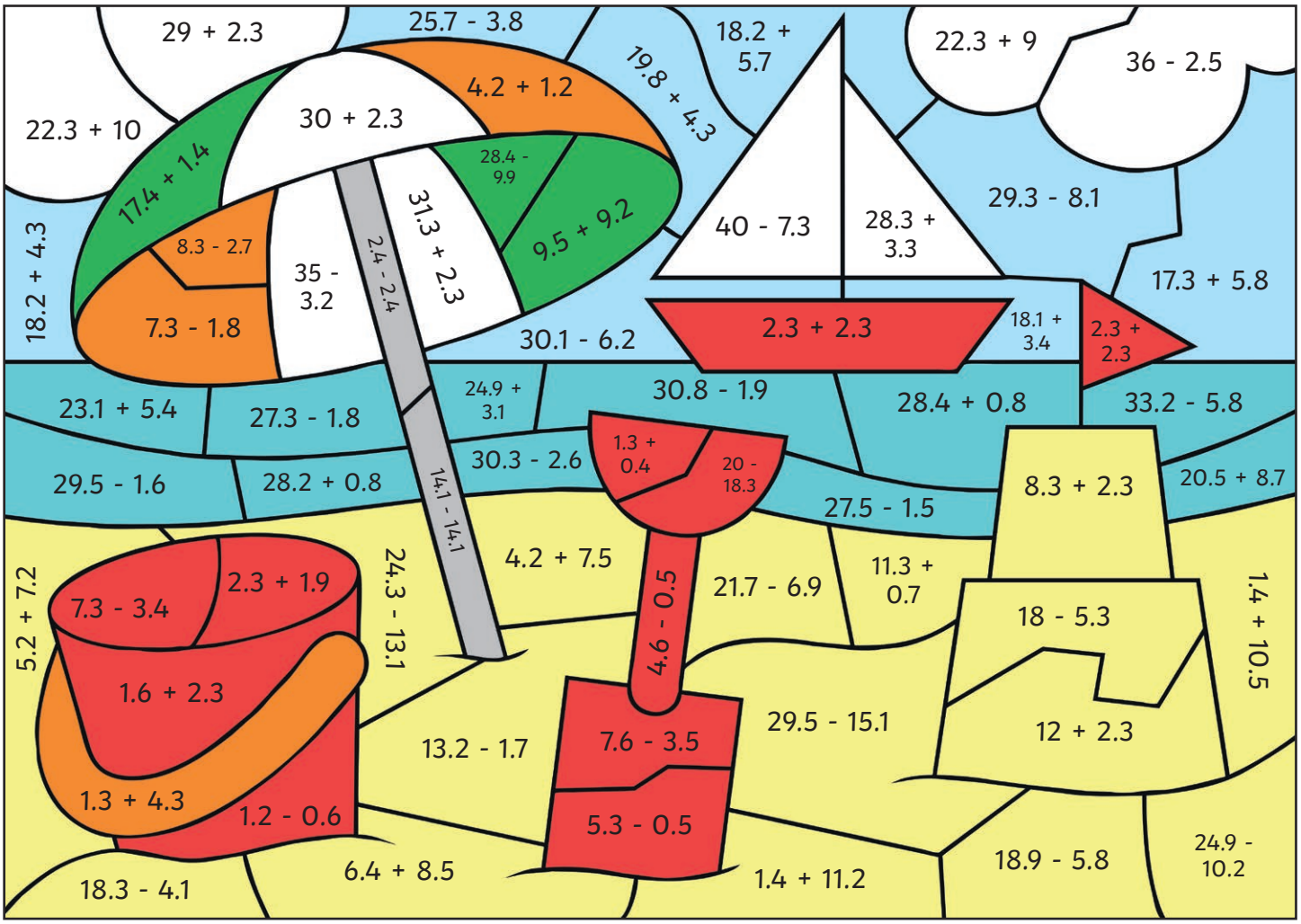
	Answer	Letter
$\frac{1}{2}$ of 30	15	B
$\frac{1}{8}$ of 104	13	E
$\frac{1}{3}$ of 63	21	C
$\frac{1}{2}$ of 12	6	A
$\frac{1}{3}$ of 9	3	U
$\frac{1}{5}$ of 85	17	S
$\frac{1}{5}$ of 65	13	E

	Answer	Letter
$\frac{2}{3}$ of 30	20	T
$\frac{1}{3}$ of 21	7	H
$\frac{1}{3}$ of 39	13	E
$\frac{1}{2}$ of 46	23	Y

	Answer	Letter
$\frac{1}{3}$ of 33	11	P
$\frac{1}{4}$ of 52	13	E
$\frac{1}{8}$ of 104	13	E
$\frac{1}{2}$ of 38	19	L

Colour by Calculation

Use the key to colour the summer-themed picture.



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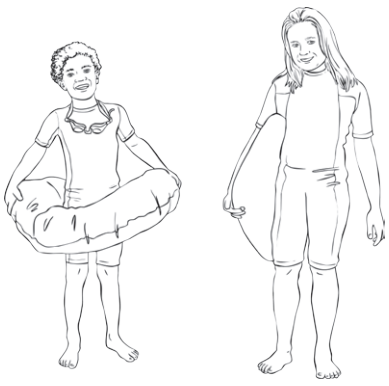

Written Methods of Multiplication and Division Code Breaker

									
2	4	8	6	1	0	5	9	3	7

1.				×		

Answer: **336 × 85 = 28 560**

2.				×		

Answer: **318 × 72 = 22 896**

3.					÷	

Answer: **2148 ÷ 4 = 537**

4.					÷	

Answer: **7128 ÷ 9 = 792**

5.					÷	

Answer: **3430 ÷ 7 = 490**

Summertime Addition and Subtraction Maths Mosaic

Solve the calculations to reveal the hidden picture. Each answer has a special colour.

green = 7200 | **pink** = 7500 | **black** = 7800 | **blue** = 8100 | **yellow** = 8400

2650 + 5450	9972 - 1872	1788 + 6612	5589 + 2811	8369 + 31	9959 - 1559	1528 + 6872	757 + 7343	7619 + 481
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1827 + 5373	658 + 6542	6475 + 1925	4660 + 3740	2461 + 5939	8417 - 17	958 + 7442	3043 + 4157	4380 + 2820

Summer Number Puzzles

I collect some shells on the beach.

I multiply the number of shells I have by 7.

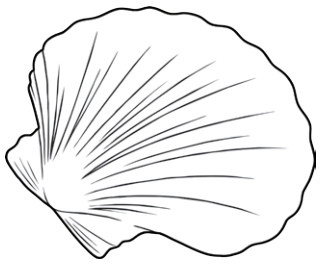
I then subtract 7,

multiply by 9,

and divide by 2.

I end with the number 1953.

How many shells did I collect? **63 shells**



I practise cartwheels on the sand.

I multiply the number of cartwheels I do by 38.

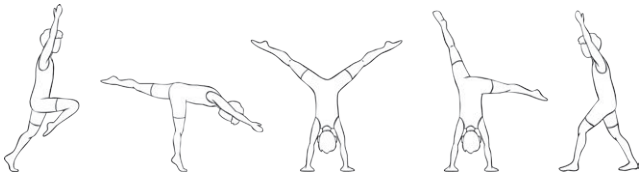
I then subtract 83,

multiply by 100,

and divide by 4.

I end with the number 19 775.

How many cartwheels did I do?
23 cartwheels



I decorate my sandcastle with flags.

I multiply the number of flags I use by 26.

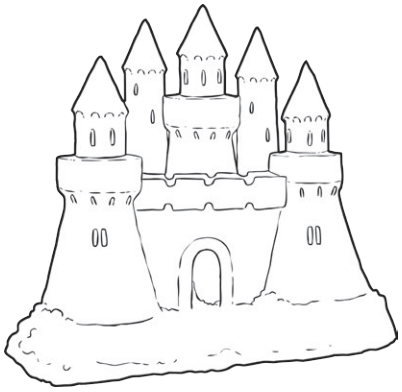
I then add 132,

multiply by 4,

and divide by 10.

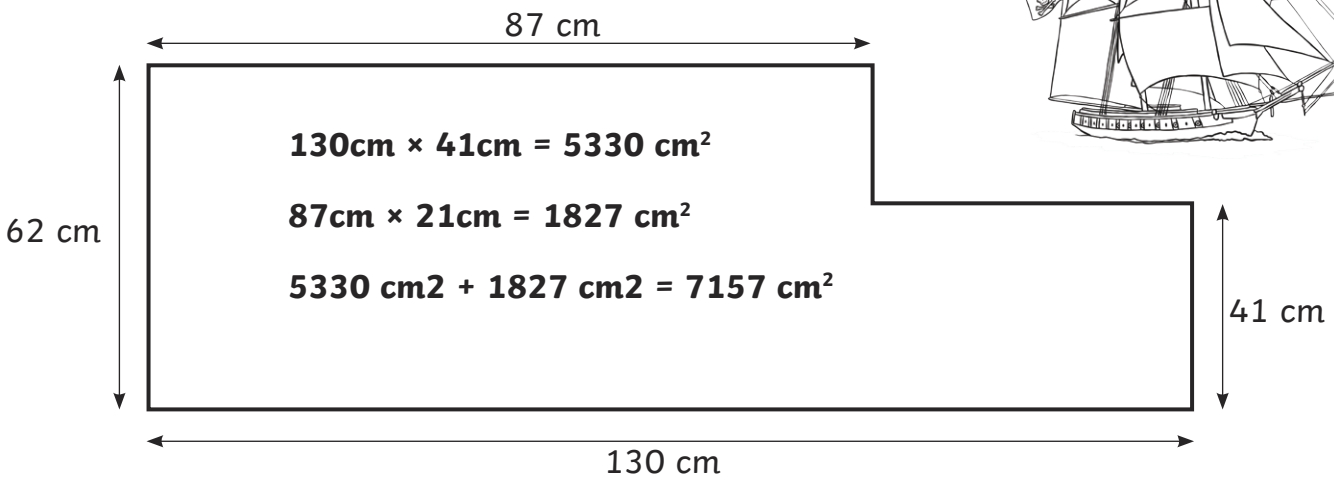
I end with the number 344.

How many flags did I use to decorate my sandcastle? **28 flags**



Pirate Flags

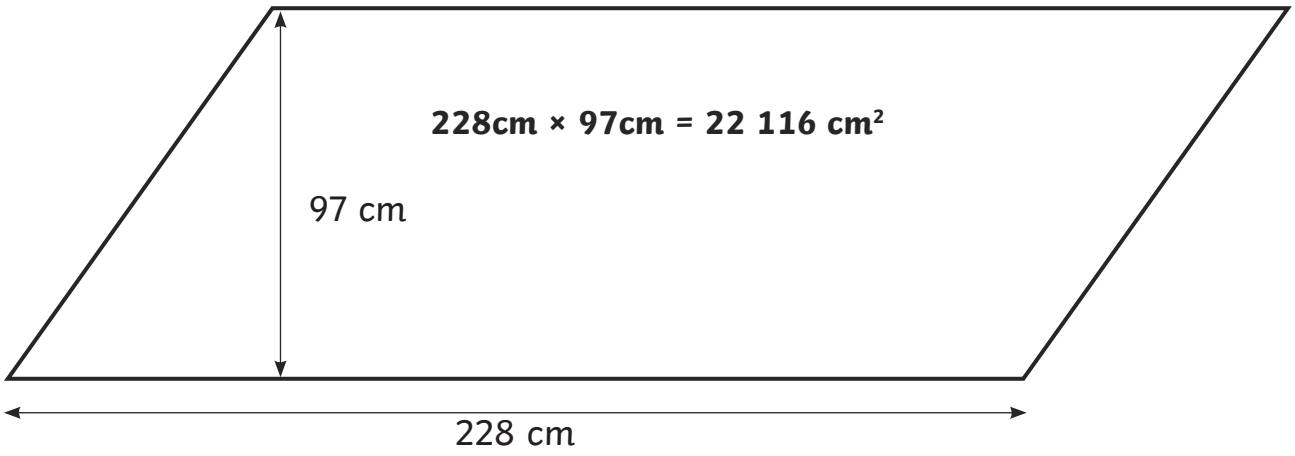
Use the dimensions to calculate the area of each pirate flag.
(Not drawn to scale)



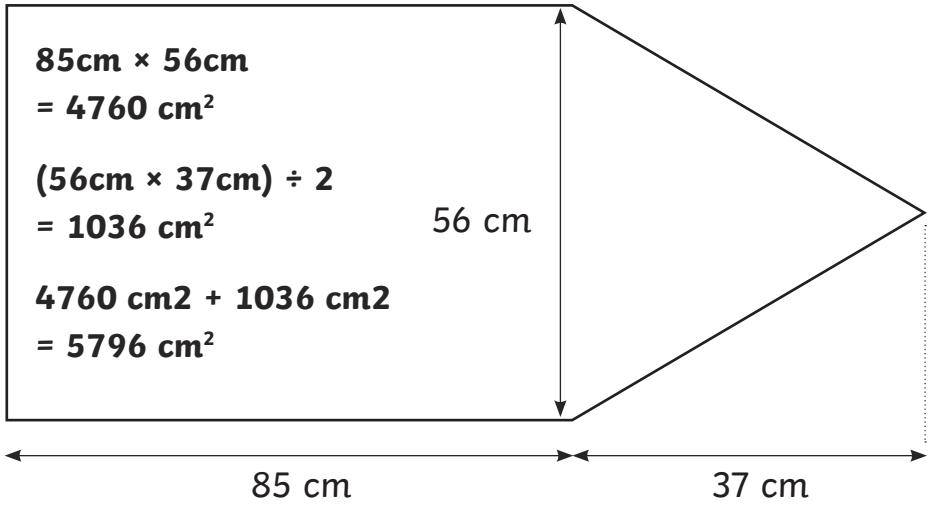
130cm × 41cm = 5330 cm²

87cm × 21cm = 1827 cm²

5330 cm2 + 1827 cm2 = 7157 cm²



228cm × 97cm = 22 116 cm²



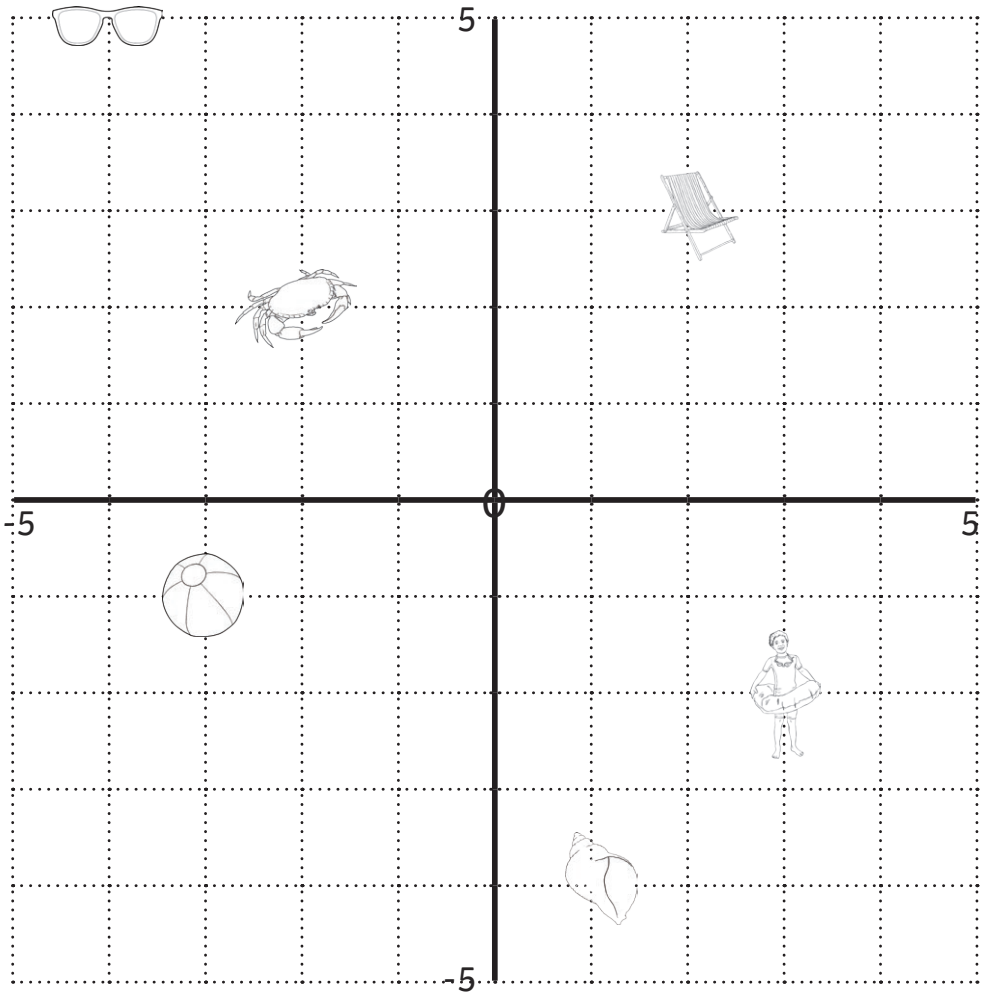
85cm × 56cm
= 4760 cm²

(56cm × 37cm) ÷ 2
= 1036 cm²

4760 cm2 + 1036 cm2
= 5796 cm²

Summer-Themed Coordinate Translations

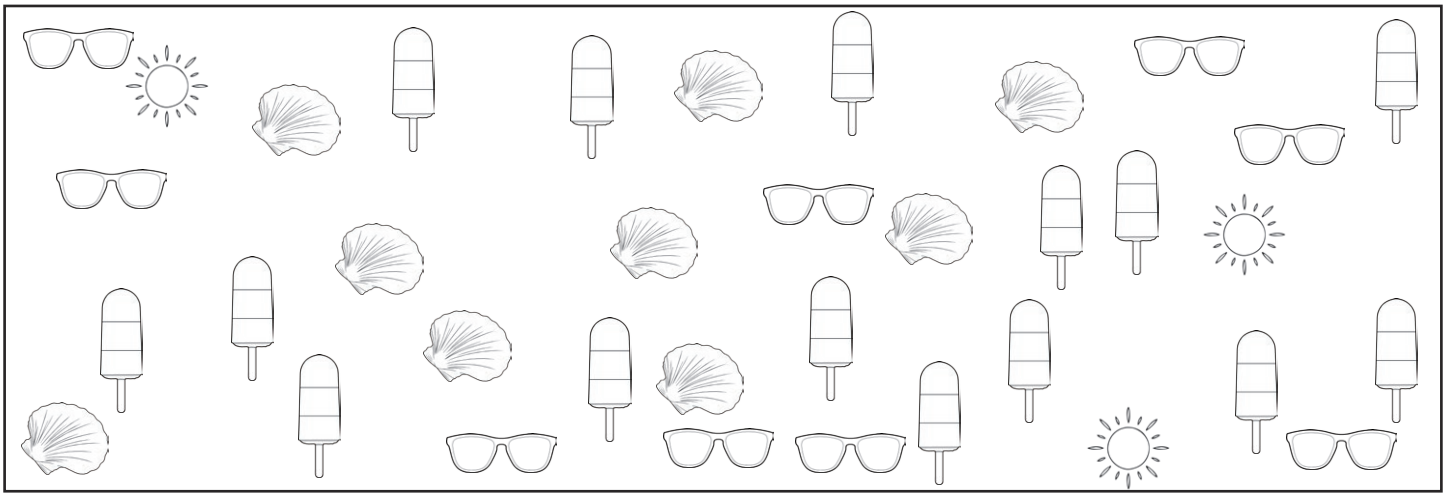
Write the coordinates of the summer-themed objects. Translate them and write the new coordinates.

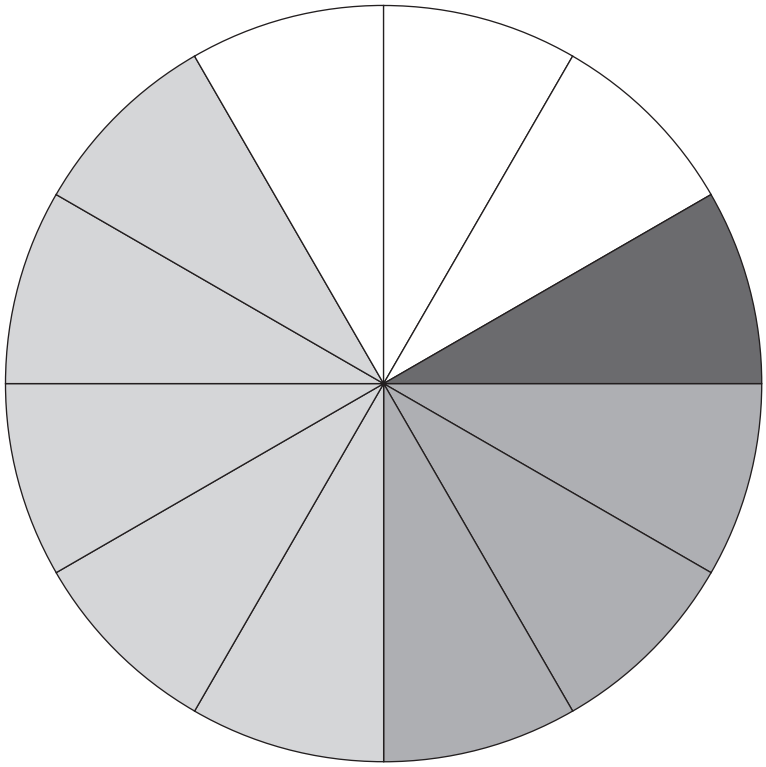


Object	Starting Coordinate	Translation	Finishing Coordinate
	**(-3, -1)**	Right 4, Up 6	**(1, 5)**
	**(-4, 5)**	Right 5, Down 7	**(1, -2)**
	**(3, -2)**	Left 4, Down 3	**(-1, -5)**
	**(-2, 2)**	Left 1, Up 2	**(-3, 4)**
	**(1, -4)**	Right 3, Down 1	**(4, -5)**
	**(2, 3)**	Right 1, Up 2	**(3, 5)**

Summer Holiday Pie Chart

Count the summer-themed objects carefully. Represent the results as a pie chart.





Item	Pie Chart Colour	Frequency	Fraction	Number of Pie Chart Segments
Sun		3	$\frac{3}{36} = \frac{1}{12}$	1
Sea shell		9	$\frac{9}{36} = \frac{1}{4}$	3
Ice lolly		15	$\frac{15}{36} = \frac{5}{12}$	5
Sunglasses		9	$\frac{9}{36} = \frac{1}{4}$	3