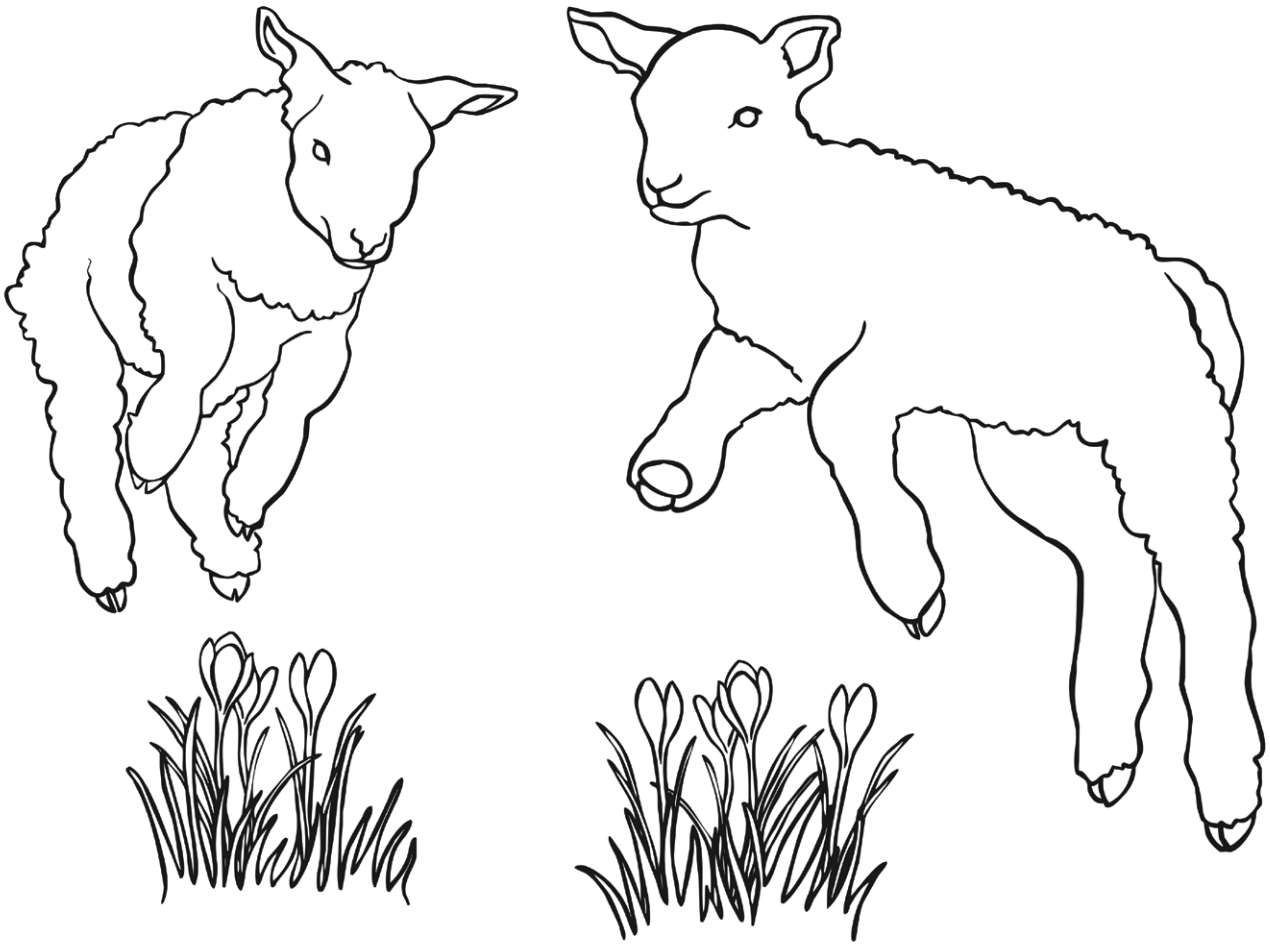
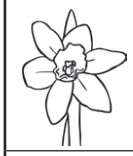
Spring-Themed

Maths Activity Booklet

Answers



Decimal Place Value and Multiplication Code Breaker

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

Multiply this number by 10:		What digit is in the tenths place of the answer?

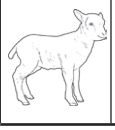
Answer: **1**

Divide this number by 10:		What digit is in the thousandths place of the answer?

Answer: **5**

Multiply this number by 100:		What digit is in the tenths place of the answer?

Answer: **1**

Divide this number by 100:		What digit is in the hundredths place of the answer?

Answer: **6**

Multiply this number by 1000:		What digit is in the hundreds place of the answer?

Answer: **8**

Divide this number by 1000:		What digit is in the tenths place of the answer?

Answer: **7**

Percentages Code Breaker

Reveal a spring-themed joke by working out the answers to each of the calculations. Use the grid to locate the letter that matches each answer. 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
25% of 20	**5**	**D**
20% of 80	**16**	**O**
50% of 26	**13**	**E**
20% of 85	**17**	**S**

80% of 30	**24**	**F**
10% of 130	**13**	**E**
30% of 50	**15**	**B**
1% of 200	**2**	**R**
2% of 150	**3**	**U**
25% of 24	**6**	**A**
20% of 10	**2**	**R**
10% of 230	**23**	**Y**

25% of 76	**19**	**L**
40% of 30	**12**	**I**
62.5% of 40	**25**	**K**
1% of 1300	**13**	**E**

50% of 18	**9**	**M**
20% of 30	**6**	**A**
0.5% of 400	**2**	**R**
75% of 28	**21**	**C**
20% of 35	**7**	**H?**

	Answer	Letter
10% of 220	**22**	**N**
80% of 20	**16**	**O,**

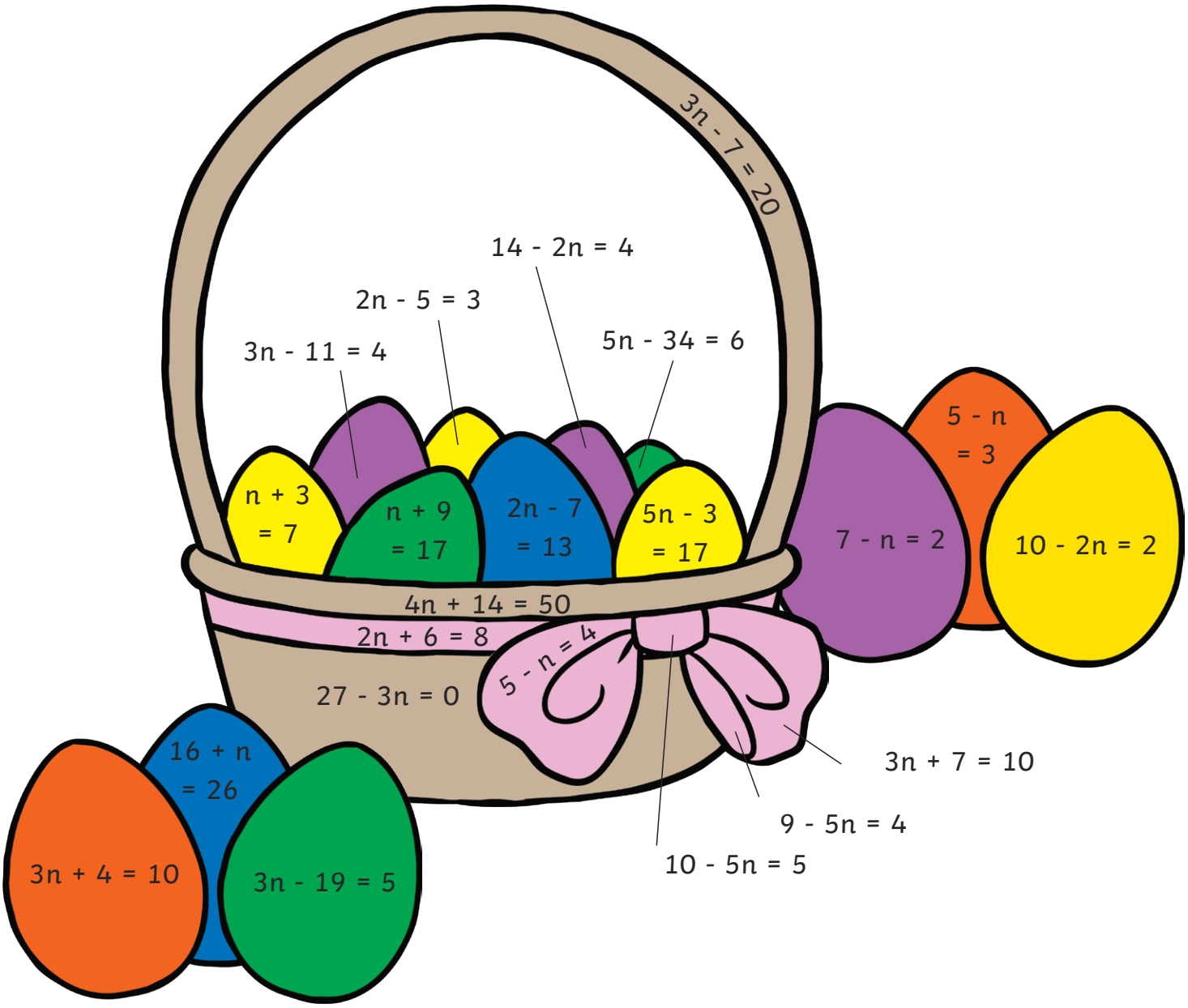
75% of 20	**15**	**B**
15% of 20	**3**	**U**
50% of 40	**20**	**T**

40% of 15	**6**	**A**
10% of 110	**11**	**P**
40% of 5	**2**	**R**
75% of 16	**12**	**I**
50% of 38	**19**	**L**

75% of 12	**9**	**M**
75% of 8	**6**	**A**
20% of 115	**23**	**Y.**

Colour by Equation

Find the value of n in each equation. Use the key to colour the spring-themed picture.



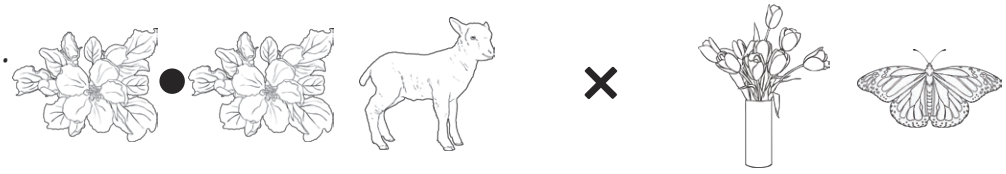
Pink:	Orange:	Yellow:	Purple:	Green:	Brown:	Blue
1	2	4	5	8	9	10

Written Methods of Multiplication of Decimals Code Breaker

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

1. 

Answer: _____ **0.01 × 6 = 0.06**

2. 

Answer: _____ **0.05 × 17 = 0.85**

3. 

Answer: _____ **0.04 × 19 = 0.76**

4. 

Answer: _____ **0.09 × 26 = 2.34**

5. 

Answer: _____ **0.07 × 35 = 2.45**

Maths Mosaic

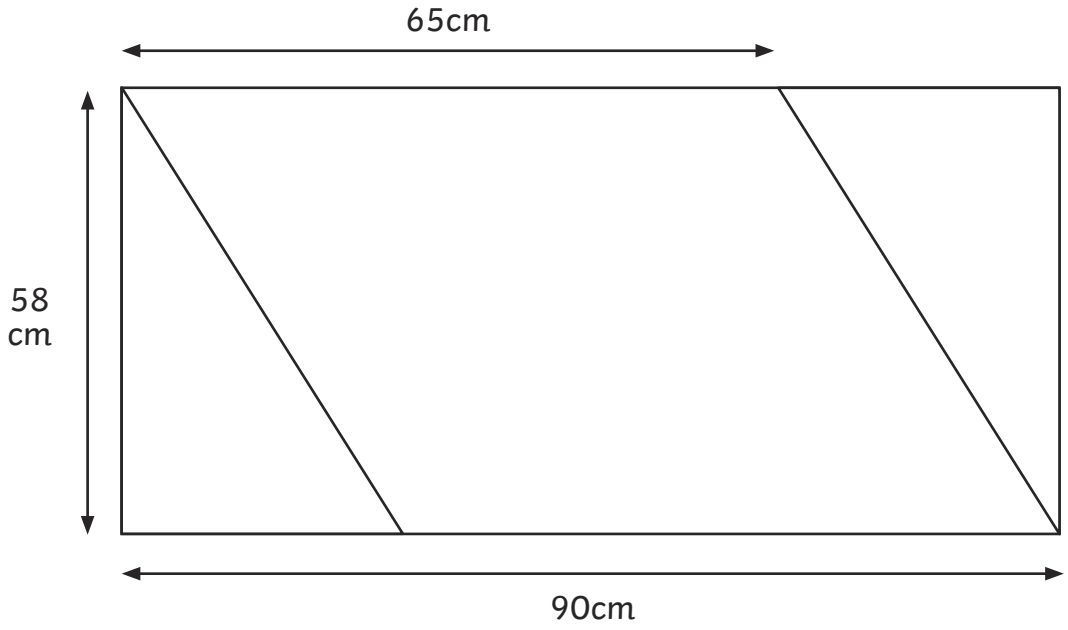
Solve the calculations to reveal the hidden picture. Each answer has a special colour.

Grey: 2.4	**Pink:** 2.6	**Blue:** 3.6	**Black:** 4.2	**White:** 5.4

1.8 x 2 =	1 x 3.6 =	18 x 0.2 =	0.2 x 12 =	0.3 x 8 =	18 x 0.2 =	4 x 0.6 =	0.8 x 3 =	1 x 2.4 =	1.8 x 2 =
2 x 1.8 =	4 x 0.9 =	0.9 x 4 =	1.3 x 2 =	0.2 x 12 =	0.9 x 4 =	0.1 x 24 =	10 x 0.26 =	0.3 x 8 =	2 x 1.8 =
18 x 0.2 =	6 x 0.6 =	9 x 0.4 =	2.6 x 1 =	0.1 x 24 =	1 x 3.6 =	2 x 1.2 =	2 x 1.3 =	0.2 x 12 =	18 x 0.2 =
0.9 x 4 =	1.8 x 2 =	1 x 3.6 =	0.13 × 20 =	2 x 1.2 =	4 x 0.9 =	0.8 x 3 =	10 × 0.26 =	2 x 1.2 =	0.9 x 4 =
9 x 0.4 =	0.6 x 6 =	4 x 0.6 =	0.8 x 3 =	1 x 2.4 =	4 x 0.6 =	2 x 1.2 =	4 x 0.6 =	2.4 x 1 =	1 x 3.6 =
1 x 3.6 =	0.6 x 9 =	2.1 × 2 =	2 x 1.2 =	0.4 x 6 =	6 x 0.9 =	0.21 × 20 =	0.8 x 3 =	1 x 2.4 =	4 x 0.9 =
4 x 0.9 =	1.8 x 3 =	0.1 x 54 =	4 x 0.6 =	2.4 x 1 =	2.7 x 2 =	54 x 0.1 =	2 x 1.2 =	0.4 x 6 =	6 x 0.6 =
1 x 2.4 =	4 x 0.6 =	2 x 1.2 =	2 x 1.2 =	40 x 0.06 =	2.4 x 1 =	4 x 0.6 =	0.8 x 3 =	1 x 2.4 =	1.8 x 2 =
2 x 1.2 =	10 x 0.26 =	1.3 x 2 =	0.13 × 20 =	4 x 0.6 =	0.8 x 3 =	1 x 2.4 =	0.8 x 3 =	1 x 2.4 =	1 x 3.6 =
4 x 0.6 =	8 × 0.3 =	2.6 x 1 =	2 x 1.2 =	0.4 x 6 =	2 x 1.2 =	0.4 x 6 =	2 x 1.2 =	0.04 x 60 =	4 x 0.9 =

Flags

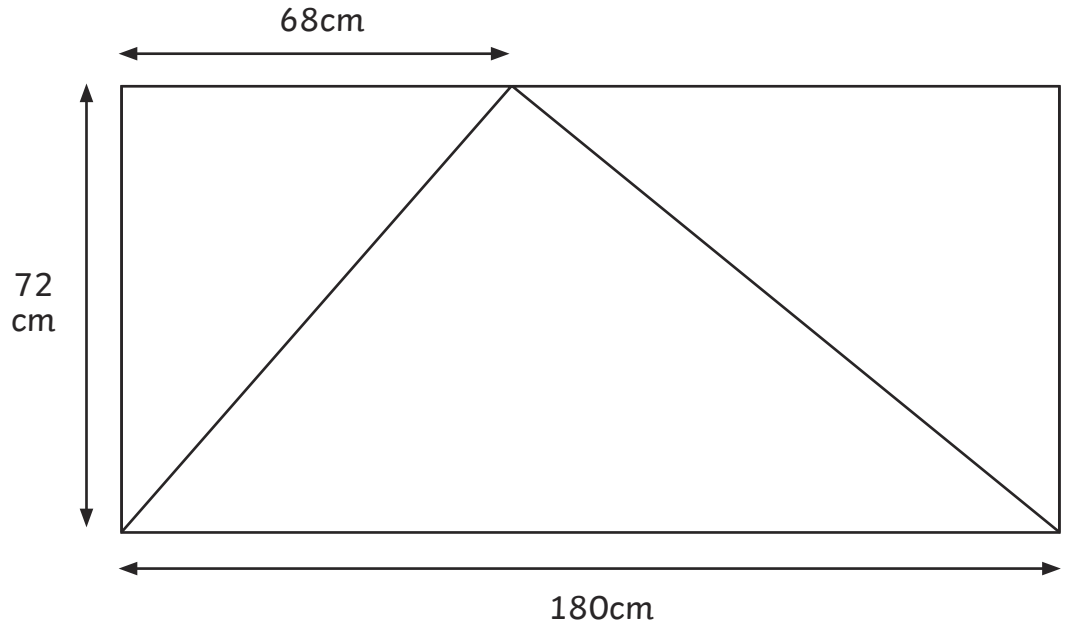
Use the dimensions to calculate the area of each colour on each flag. (Not drawn to scale)



Blue 65cm × 58cm = 3770 cm²

Orange 58cm × 25cm = 1450 cm²

Each orange triangle = 725 cm²



Red 68cm × 72cm ÷ 2 = 2448 cm²

Green 112cm × 72cm ÷ 2 = 4032 cm²

Yellow 180cm × 72cm - 2448 cm² - 4032 cm² = 6480 cm²

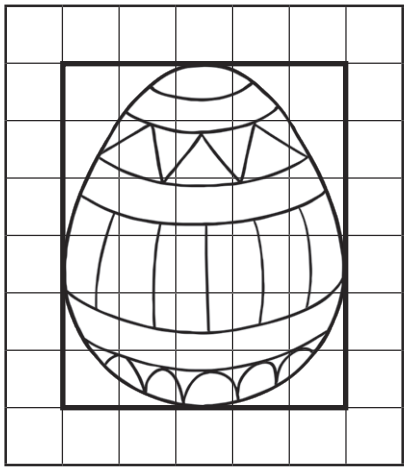
Fractions, Decimals and Percentages Board Game

Instructions:

- Choose a space to start from and place your counter on it.
- Roll a dice and move clockwise that number of spaces.
- Find an equivalent fraction on the flowers and cover it over.
- If you land on a square where the answer has already been covered, miss your go.
- The winner is the player who covers the last flower.

0.4	37.5%	80%	0.75	12.5%
0.375	$\frac{3}{4}$	$\frac{2}{5}$	$\frac{3}{10}$	62.5%
0.125	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{4}{5}$	40%
75%	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{5}{8}$	25%
0.5	0.8	0.25	0.625	30%

Egg Increase



Can you draw the egg's box on the blank grid, increasing the size of the box by a ratio of 1:3.

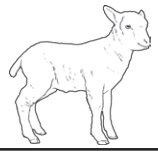
As an extra challenge, can you draw the egg, too?

Spring-Themed Linear Sequences

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

Use the code above to find the first 3 numbers in each sequence. Complete the sequences, giving the answers in numerals.

As a challenge, write the expression for each sequence, using n as the term.

			**11**	**13**	**15**

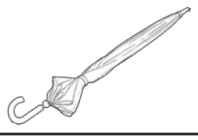
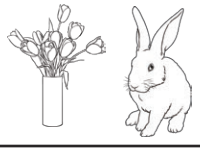
Expression: **2n + 3**

			**13**	**16**	**19**

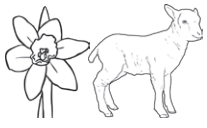
Expression: **3n + 1**

			**23**	**28**	**33**

Expression: **5n + 3**

			**22**	**28**	**34**

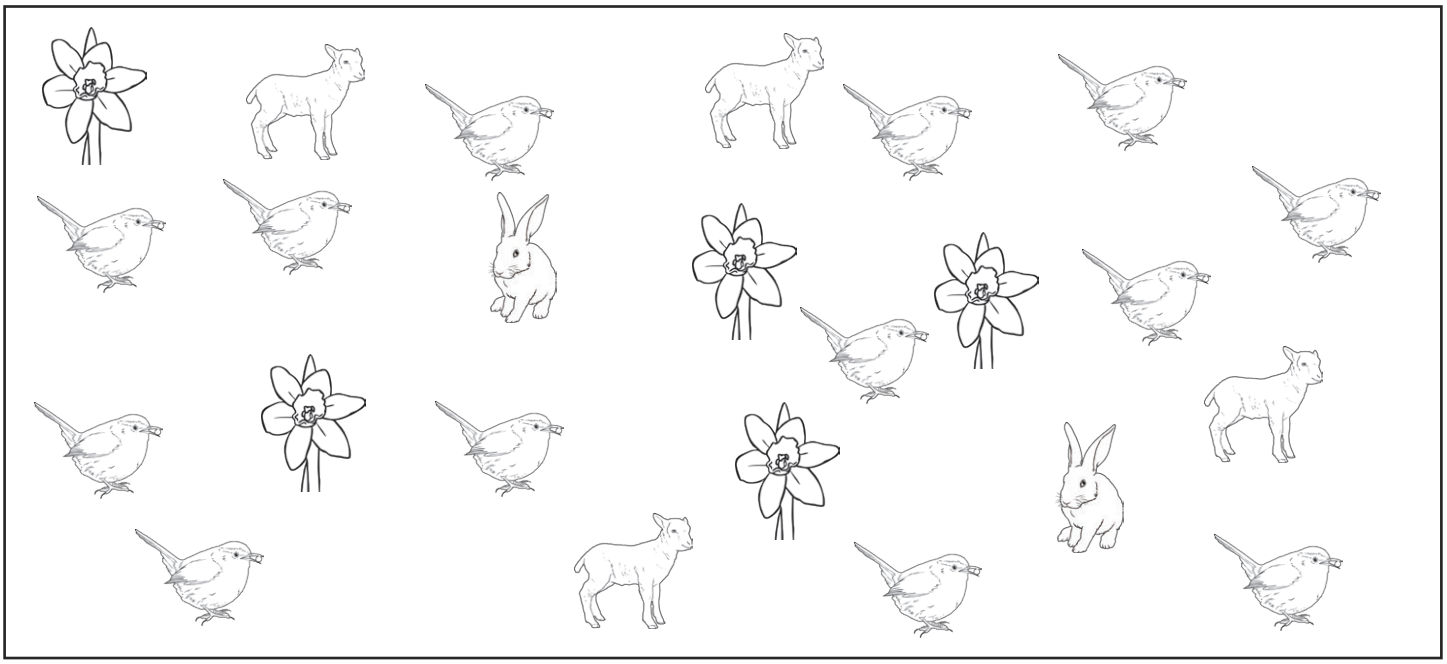
Expression: **6n - 2**

			**34**	**43**	**52**

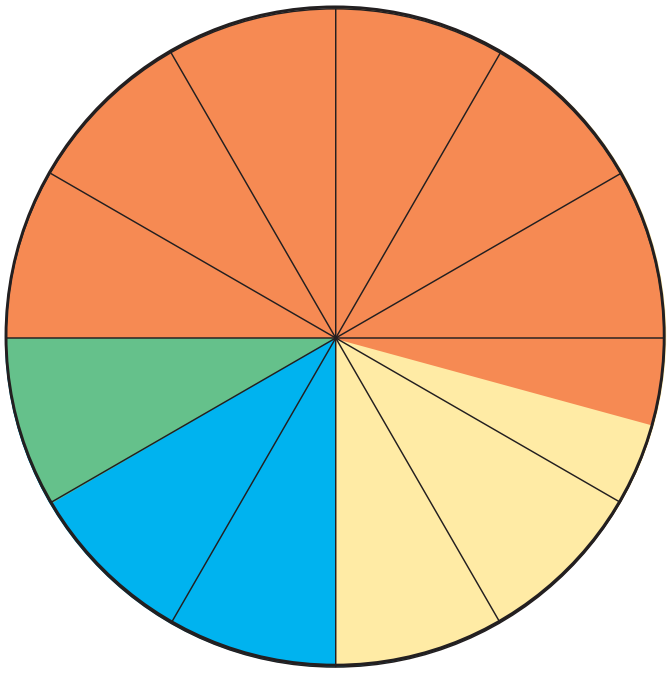
Expression: **9n - 2**

Spring Pie Chart

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



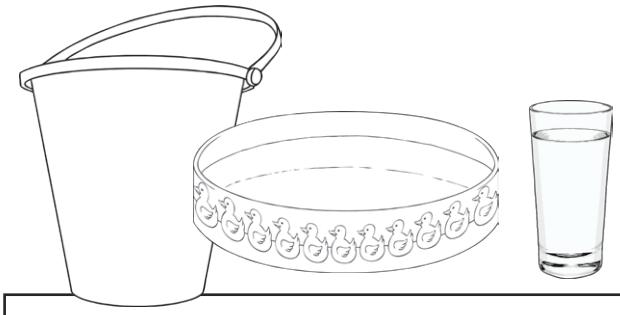
Item	Pie Chart Colour	Frequency	Fraction	Number of Pie Chart Segments
birds		13	$\frac{13}{24}$	$6\frac{1}{2}$
bunnies		2	$\frac{2}{24}$ or $\frac{1}{12}$	1
daffodils		5	$\frac{5}{24}$	$2\frac{1}{2}$
lambs		4	$\frac{4}{24}$ or $\frac{2}{12}$	2



Spring Mean Board Game

Start	**2,3,4** **3** 11 Points	**4,2,9** **5** 7 Points			
		5,8,8 **7** 15 Points	**4,10,10** **8** 18 Points	**4,5,12** **7** 11 Points	**11,7,9** **9** 24 Points
Finish **12,3,12,2,8** **7.4**					**11,8,11** **10** 16 Points
1,12,4,10,6 **6.6** 11 Points	**3,10,2,4,4** **4.6** 18 Points	**12,10,1,7,4** **6.8** 16 Points	**12,6,12,2,1** **6.6** 5 Points		**12,11,5,11** **9.75** 15 Points
			3,3,11,5,6 **5.6** 7 Points		**5,10,1,7** **5.75** 23 Points
3,3,9,6,2 **4.6** 21 Points	**5,7,3,8,9** **6.4** 24 Points	**3,4,9,7,12** **7** 16 Points	**12,9,1,5,8** **7** 8 Points		**9,6,10,4** **7.25** 5 Points
4,12,10,2,6 **6.8** 23 Points					**5,12,3,11** **7.75** 11 Points
7,9,1,7 **6** 16 Points	**8,3,9,3** **5.75** 7 Points	**5,2,6,1** **3.5** 8 Points	**10,2,7,10** **7.25** 15 Points	**6,5,6,7** **6** 18 Points	**10,12,7,9** **9.5** 21 Points

Spring Measure Riddles



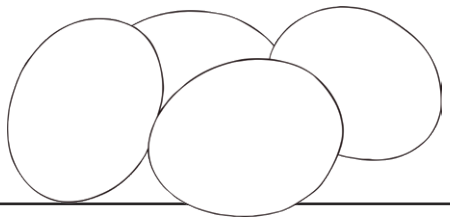
I have a bucket which I use to fill a paddling pool.

I use 19 full buckets of cold water and 8 buckets of hot water, so the pool is $\frac{3}{4}$ full.

The capacity of the pool is 288 litres.

If I poured the water from one bucket into some glasses, I could fill 32 glasses.

What is the capacity of each glass in millilitres? **250ml**

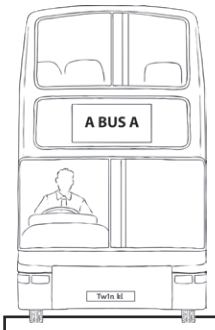


I have four bags of small chocolate eggs, with each bag containing an equal number of eggs and weighing 0.36kg.

I hide the eggs in the garden.

24 children search for the eggs and each finds 3 eggs. They found all of the eggs.

How much does each egg weigh in grams? **20g**



My friends and I go to the cinema by bus.

We spend 10 minutes walking and 15 minutes waiting at the bus stops, the journeys take 20 minutes each way.

We arrive as the film starts. There are 25 minutes of adverts and trailers, and the film lasts for 95 minutes.

We get home at 17:20.

What time did we set off to the cinema? **14:15**