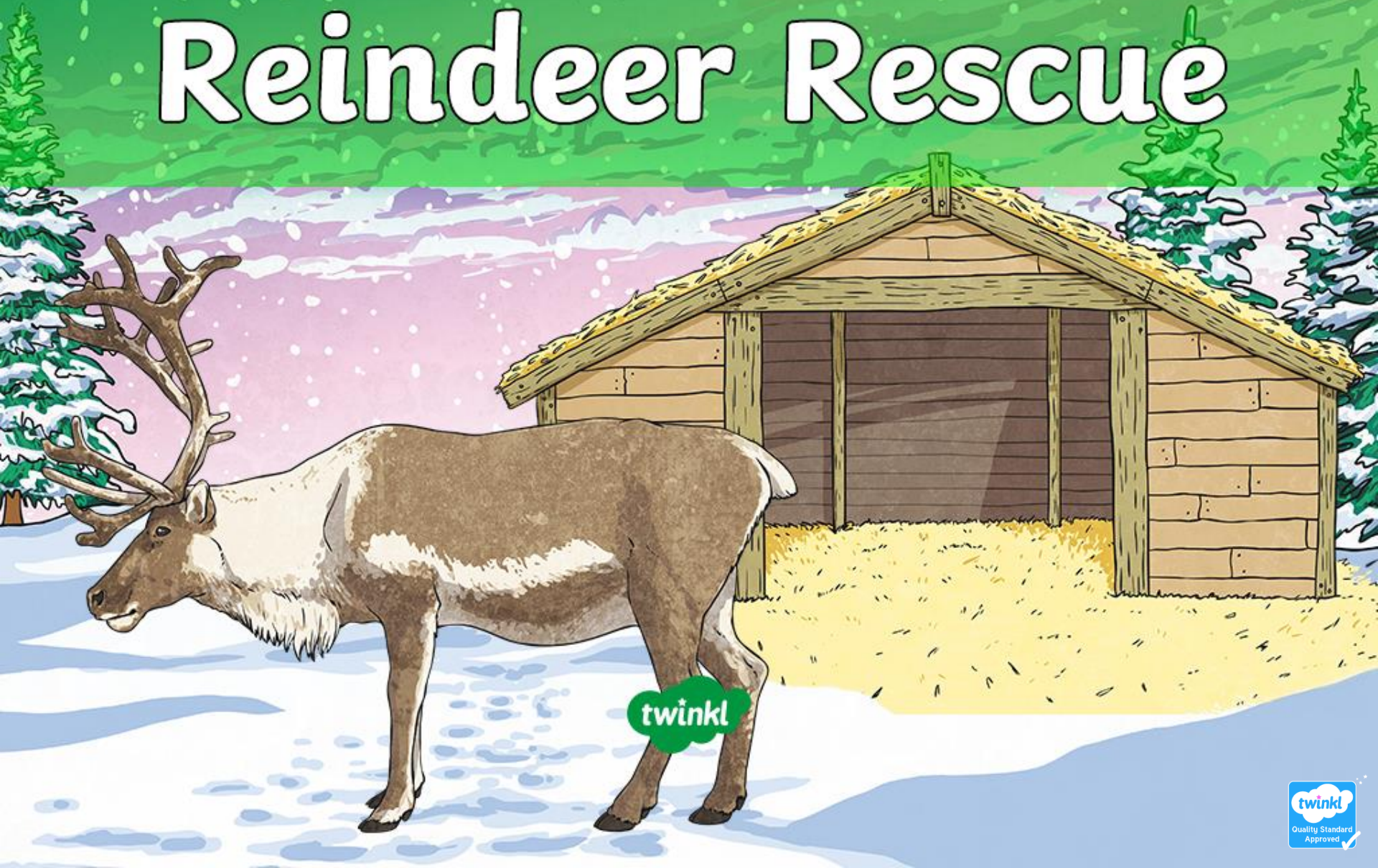


Reindeer Rescue



twinkl

Unlock the Reindeer Stable

Christmas Eve is a very busy time at the North Pole. All the elves are packing the sleigh with wonderful presents while Father Christmas has a delicious mug of hot chocolate before he sets out delivering presents around the world.

Patch the Elf is in the stable feeding the reindeer and preparing them for their round-the-world flight. They've just finished munching the last carrot when Patch realises he's lost the key to the locked stable door. If Patch can't open the door, there will be no reindeer to pull Father Christmas's sleigh!



Solve the clues and puzzles to discover the passcode number needed to unlock the door of the reindeer stable.

The clues could be anywhere, so you need to keep your eyes peeled and your mind sharp!

Unlock the Reindeer Stable

The Rules

- You can work in small groups.
- When you find a clue, work together to solve the puzzle.
- Write your answer down on your answer sheet.
- Once you have discovered the passcode number for the stable door, check it with your teacher to discover if you have successfully unlocked the reindeer stable!




Answers to the Clues




Clue 1

Reveal


6	12	18	24	30		42	48
---	----	----	----	----	---	----	----


9	18	27	36	45		63	72
---	----	----	----	----	---	----	----


21	28		42	49	56	63	70
----	----	---	----	----	----	----	----

99	88	77		55	44	33	22
----	----	----	---	----	----	----	----

48	42	36	30	24		12	6
----	----	----	----	----	---	----	---

81	72	63	54	45	36		18
----	----	----	----	----	----	---	----

63		49	42	35	28	21	14
----	---	----	----	----	----	----	----

132	121	110	99	88	77	66	
-----	-----	-----	----	----	----	----	---

Put the **hidden numbers in order from smallest to largest**. Which is the largest?

18, 27, 35, 36, 54, 55, 56, 66

$$66 = 6 + 6 = 12 = 1 + 2 = 3$$

Find the digit-sum of this number. This is the **first** digit you need to unlock the reindeer stable.

























3

Clue 2

Reveal

									
8	3	4	6	1	7	5	9	0	2

Are these comparison statements **true** or **false**?

				>					False
				<					True
				>					True

If there are more true statements, then the **second** digit you need to unlock the reindeer stable is:

1

If there are more false statements, then the **second** digit you need to unlock the reindeer stable is:

8

Clue 3

Reveal

Use the code breaker to reveal a mixed-up Christmas word.

A	B	C	D	E	F	G	H	I	J	K	L	M
3	5	7	9	12	15	54	42	36	40	45	49	50

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
56	63	66	72	77	84	88	90	99	108	121	132	144

Calculation	Answer	Letter
$42 \div \square = 6$	7	c
$\square \times 9 = 108$	12	e
$24 \div \square = 8$	3	a
$\square \times 11 = 77$	7	c

Calculation	Answer	Letter
$\square \div 9 = 5$	45	k
11×7	77	r
$\square \div 11 = 77$	77	r
12×7	84	s

Turn over the matching object card to reveal the **third** digit you need to unlock the reindeer stable.

Crackers =

7

Clue 4

Reveal

Solve this number riddle by using inverse operations:

Patch the Elf is busy making yo-yos in Santa's Workshop.

I multiply the number of yo-yos Patch makes by 4.

I then subtract 300,

and divide by 3.

I end with the number 36.

How many yo-yos did Patch the Elf make? **102 yo-yos**

Find the digit sum of this answer.

$$102 = 1 + 0 + 2 = 3$$

This is the **fourth** digit of the number you need to unlock the reindeer stable.

3

Clue 5

Reveal

									
8	3	4	6	1	7	5	9	0	2

Calculate the answer to this addition calculation:

$$\begin{array}{rcccc} & \begin{array}{c} \text{Gift} \\ 1 \end{array} & \begin{array}{c} \text{Stocking} \\ 3 \end{array} & \begin{array}{c} \text{Snowman} \\ 7 \end{array} & \begin{array}{c} \text{Santa} \\ 6 \end{array} \\ + & \begin{array}{c} \text{Pie} \\ 4 \end{array} & \begin{array}{c} \text{Holly} \\ 9 \end{array} & \begin{array}{c} \text{Holly} \\ 9 \end{array} & \begin{array}{c} \text{Tree} \\ 8 \end{array} \\ \hline & 6 & 3 & 7 & 4 \end{array}$$

Find the digit sum of this answer.


$$1376 + 4998 = 6374 = 6 + 3 + 7 + 4 = 20 = 2 + 0 = 2$$

This is the **fifth** digit of the number you need to unlock the reindeer stable.

2

Clue 6

Reveal

									
8	3	4	6	1	7	5	9	0	2

Calculate the answer to this subtraction calculation:

$$\begin{array}{r} \begin{array}{cccc} \text{Reindeer} & 5 & \text{Stocking} & 3 \\ \text{Bells} & 0 & \text{Dunlop} & 2 \end{array} \\ - \begin{array}{cccc} \text{Gift} & 1 & \text{Holly} & 9 \\ \text{Pie} & 4 & \text{Tree} & 8 \end{array} \\ \hline \begin{array}{cccc} 3 & 3 & 5 & 4 \end{array} \end{array}$$

Find the digit sum of this answer.

$$5302 - 1948 = 3354 = 3 + 3 + 5 + 4 = 15 = 1 + 5 = 6$$

This is the **sixth** digit of the number you need to unlock the reindeer stable.

6

Clue 7

Reveal

How many reindeer are there? Find $\frac{3}{5}$ of this number.



$$\frac{3}{5} \text{ of } 15 = 9$$

This is the **seventh** digit you need to unlock the reindeer stable.

9

Clue 8

Reveal

In just one hour, the Candy Cane Machine in Santa's Workshop makes between 150 to 170 candy canes.

Counted in threes, there are two left over. Counted in fives, there are three left over.

How many candy canes were made?



Find the digit sum of this answer.


158 candy canes = $1 + 5 + 8 = 14 = 1 + 4 = 5$


This is the **eighth** digit of the number you need to unlock the reindeer stable.

5

Clue 9

Reveal

What is the coordinate position of the  ?

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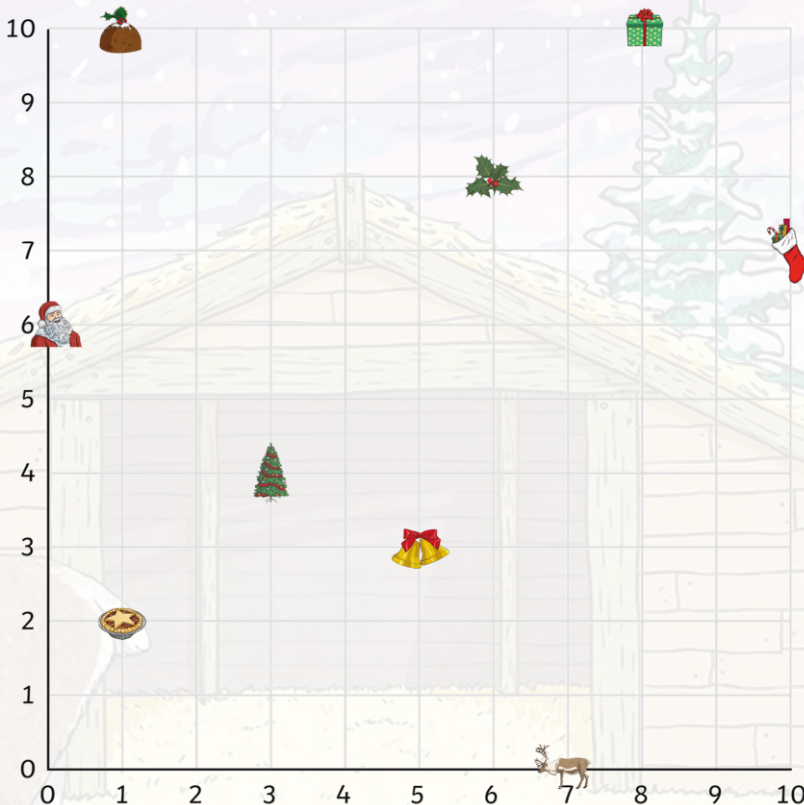
Add together the first number
(x-axis position) in each coordinate answer.

Find the digit sum of this answer.

holly = (6, 8)

reindeer = (7, 0)

$$6 + 7 = 13 = 1 + 3 = 4$$

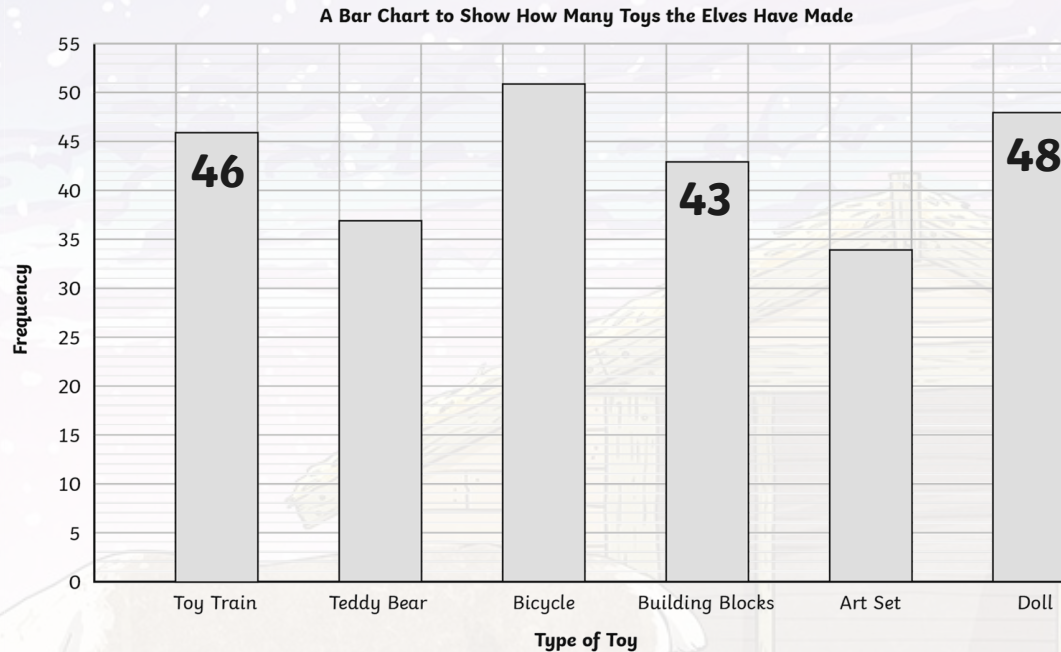


This is the **ninth** digit of the number you need to unlock the reindeer stable.

4

Clue 10

Reveal



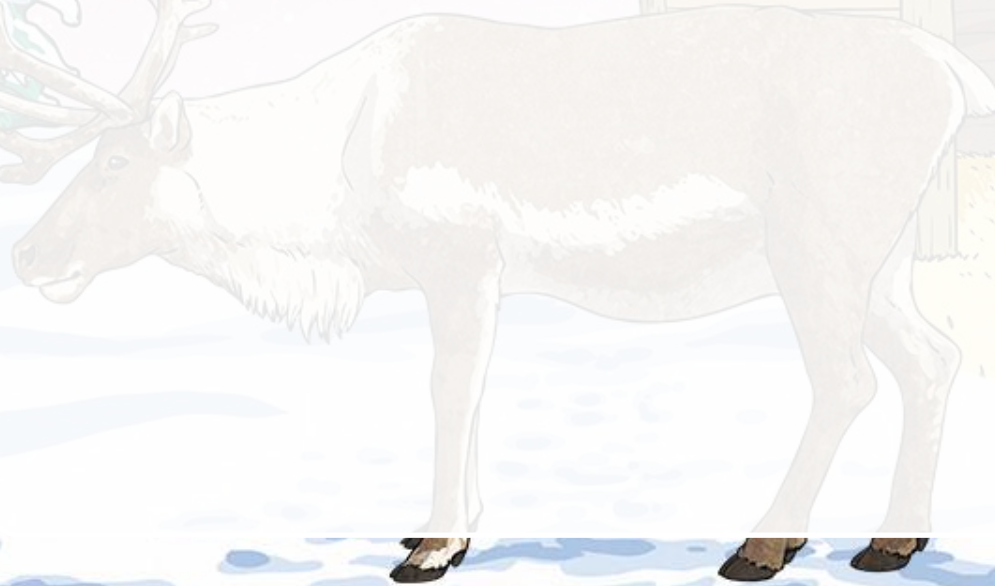
How many toy trains, building blocks and dolls did the elves make altogether?

Find the digit sum of this answer: $46 + 43 + 48 = 137$ $1 + 3 + 7 = 11$ $1 + 1 = 2$

This is the **tenth** digit you need to unlock the reindeer stable.

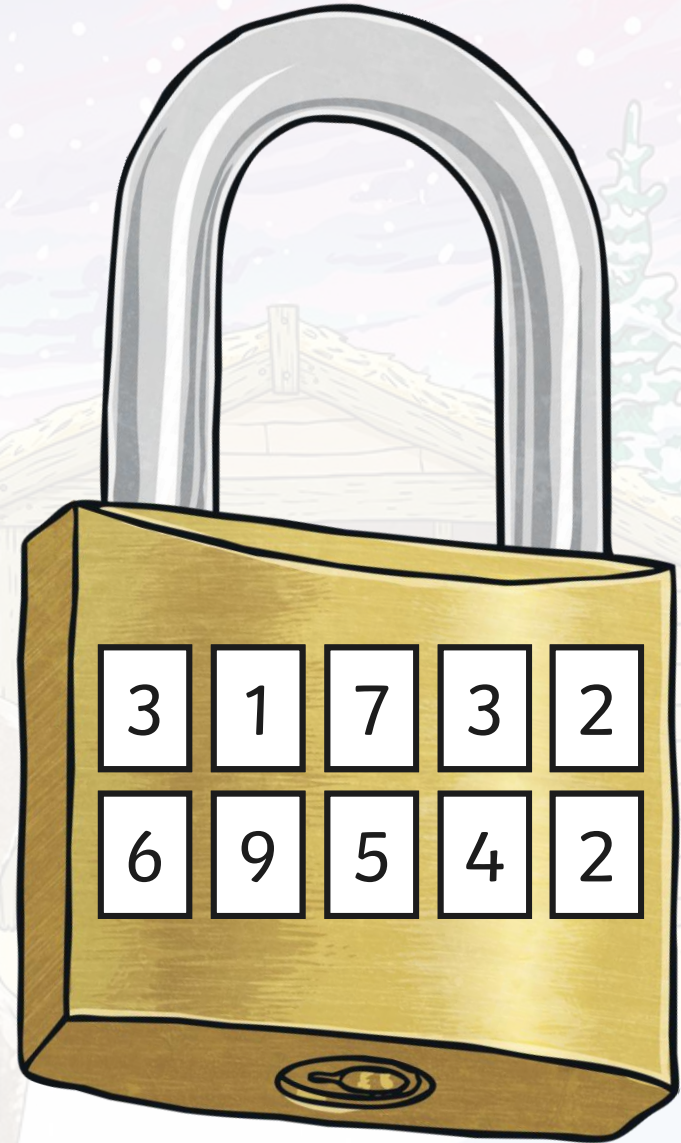
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Unlock the Stable Door



Put your number passcode in to the padlock to see if you can unlock the reindeer stable door and save Christmas!

1	2	3	4	5
6	7	8	9	10





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