

The Mystery of the Missing Elf

Maths Mystery Game

It is Christmas Eve and Father Christmas needs help to pack his sleigh before he delivers presents to all the little boys and girls around the world. However, while they're loading the sleigh, he notices that one of his cheeky elves is missing.

Can you help Father Christmas work out which elf is missing so that they can find them and get on with packing his sleigh full of toys?

Solve the clues to discover who the missing elf is.



The Mystery of the Missing Elf Maths Mystery Game

Name	Hat Colour	Age	Right or Left Handed	Height	Outfit design
Timmy	Black	52	Left	103cm	Red with green spots
Maple	Red	34	Right	58cm	Red with white spots
Twinkle	Green	57	Right	66cm	Red with green spots
Gus	Red	23	Left	99cm	Green with red spots
Sparkle	White	54	Right	112cm	Red with green spots
Cookie	Green	35	Left	108cm	Green with red stripes
Midge	Red	54	Left	86cm	Red with green spots
Lulu	Black	71	Right	94cm	Red with white stripes
Tony	Green	63	Right	100cm	Red with green spots
Emmanuelle	Green	56	Right	63cm	Red with green spots
Lottie	Black	47	Right	68cm	Red with green spots
Holly	Red	39	Left	111cm	Red with green stripes
Jingle	Black	49	Left	63cm	Red with green spots
Noel	Red	28	Right	106cm	Green with red stripes
Monty	Red	52	Left	74cm	Red with white spots
Jasper	Green	47	Right	67cm	Red with green spots
Nancy	Black	68	Right	65cm	Red with green spots
Olio	Green	70	Right	102cm	Green with red spots
Mabel	Green	45	Left	99cm	Red with green spots
Joy	Green	36	Right	88cm	Green with red spots
Florrie	Red	36	Left	63cm	Red with green spots
Stan	White	50	Right	101cm	Red with green stripes
Vinny	Black	43	Left	57cm	Red with green spots
Ginger	Black	65	Right	86cm	Red with green spots
Spike	Black	72	Right	105cm	Green with red stripes



The Mystery of the Missing Elf Maths Mystery Game

Clue 1

Find the next three numbers in each number sequence.

Find the final number in each sequence in the grid below and colour it in.

The one remaining box will give you a clue about the missing elf's outfit.

1234	1244	1254			
1265	1255	1245			
12 575	12 585	12 595			
4	3	2			
38	28	18			

1215 Green with red stripes	1284 Green with red spots	-12 Red with green stripes
1250 Red with green spots	12 625 Red with white stripes	-1 Red with white spots

Clue - The missing elf's outfit is _____



The Mystery of the Missing Elf Maths Mystery Game

Clue 2

Find a path through the maze by colouring in the **incorrectly** written Roman Numerals
The path will to reveal a clue about the missing elf's hair colour.

START	27 = XXIIV	119 = CXXI	45 = XLV	43 = XLIII
10 = X	15 = XV	96 = XCIV	328 = CCXXVII	812 = CCMXII
900 = XC	65 = LXV	18 = XVIII	60 = LX	274 = CCLXXVI
100 = C	23 = XXIII	107 = CXII	55 = XXXXXV	427 = CDLXXI
500 = L	5 = V	539 = DXXXVIII	31 = XXXI	6 = VI
45 = XLX	14 = XIV	61 = XLI	450 = DCL	19 = XXIX
100 = L	143 = DCLIII	29 = XXIX	21 = XXI	403 = XDIII
The elf's hat is not red	The elf's hat is not white	The elf's hat is not green	The elf's hat is not brown	The elf's hat is not black

Clue - The missing elf's hat is not _____

The Mystery of the Missing Elf Maths Mystery Game

Clue 3

Find the answers to these questions in the grid and cross them off.

The one remaining box will tell give you a clue about the missing elf's height.

$12\,563 + 1234 =$

$25\,398 - 22\,157 =$

$32\,457 - 11\,324 =$

$65\,214 + 23\,592 =$

$15\,789 + 24\,611 =$

$72\,564 - 46\,251 =$

$2653 + 51\,246 =$

$82\,653 - 14\,252 =$

88 806 The elf is more than 1 metre tall	25 467 The elf is between 50 cm and 70 cm tall	26 313 The elf is less than 50 cm tall
40 400 The elf is between 90 cm and 1 m	13 797 The elf is more than 110cm tall	3241 The elf is the shortest elf
53 899 The elf is the tallest elf	68 401 The elf is between 80 cm and 90 cm tall	21 133 The elf is between 100 cm and 110 cm tall

Clue - The missing elf is between _____ and _____ tall.

The Mystery of the Missing Elf Maths Mystery Game

Clue 4

In each row, colour the number that is the value of the underlined digit.

The column with the most correct answers will reveal a clue about the missing elf's age.

24 <u>9</u> 77	9	9000	900	90
305 10 <u>2</u>	2	20	2000	200
<u>1</u> 59 672	1	100 000	100	10
76 5 <u>9</u> 8	900	90	9000	9
63 <u>9</u> 84	90	90 000	9	900
51 06 <u>7</u>	7	7000	700	70
71 2 <u>9</u> 5	900	9000	90	9
64 <u>5</u> 44	5	50	5000	500
98 9 <u>8</u> 9	9	9000	900	90
The missing elf's age is...	25 - 50	50 - 75	75 - 100	100+

Clue - The missing elf is _____ years old.

The Mystery of the Missing Elf Maths Mystery Game

Clue 5

Check if these maths statements are true or false. If it is true, put a tick. If it is false, put a cross. Count the number of ticks and crosses.

If there are more ticks than crosses, the elf is right-handed.

If there are more crosses than ticks, the elf is left-handed.

	✓	✗
43 761 rounded to the nearest 10 is 43 760		
38 769 rounded to the nearest 100 is 38 700		
98 346 rounded to the nearest 1000 is 98 000		
175 308 rounded to the nearest 10 is 175 300		
62 921 rounded to the nearest 100 is 63 000		
343 652 rounded to the nearest 10 000 is 340 000		
145 387 rounded to the nearest 100 000 is 100 000		
96 826 rounded to the nearest 1000 is 96 000		
856 235 rounded to the nearest 100 000 is 900 000		
Total		

Clue - The elf is right-handed / left-handed.

(Circle the correct answer)

The missing elf is:

The Mystery of the Missing Elf Maths Mystery Game **Answers**

Clue 1

Find the next three numbers in each number sequence.

Find the final number in each sequence in the grid below and colour it in.

The one remaining box will give you a clue about the missing elf's outfit.

1234	1244	1254	1264	1274	1284
1265	1255	1245	1235	1225	1215
12 575	12 585	12 595	12,605	12,615	12,625
4	3	2	1	0	-1
38	28	18	8	-2	-12

1215 Green with red stripes	1284 Green with red spots	-12 Red with green stripes
1250 Red with green spots	12 625 Red with white stripes	-1 Red with white spots

Clue - The missing elf's outfit is red with green spots

The Mystery of the Missing Elf Maths Mystery Game **Answers**

Clue 2

Find a path through the maze by colouring in the **incorrectly** written Roman Numerals
The path will to reveal a clue about the missing elf's hair colour.

START	27 = XXIIV	119 = CXXI	45 = XLV	43 = XLIII
10 = X	15 = XV	96 = XCIV	328 = CCXXVII	812 = CCMXII
900 = XC	65 = LXV	18 = XVIII	60 = LX	274 = CCLXXVI
100 = C	23 = XXIII	107 = CXII	55 = XXXXV	427 = CDLXXI
500 = L	5 = V	539 = DXXXVIII	31 = XXXI	6 = VI
45 = XLX	14 = XIV	61 = XLI	450 = DCL	19 = XXIX
100 = L	143 = DCLIII	29 = XXIX	21 = XXI	403 = XDIII
The elf's hat is not red	The elf's hat is not white	The elf's hat is not green	The elf's hat is not brown	The elf's hat is not black

Clue - The missing elf's hat is not **black**.

The Mystery of the Missing Elf Maths Mystery Game **Answers**

Clue 3

Find the answers to these questions in the grid and cross them off.

The one remaining box will tell give you a clue about the missing elf's height.

$$12\ 563 + 1234 = \mathbf{13\ 797}$$

$$32\ 457 - 11\ 324 = \mathbf{21\ 133}$$

$$15\ 789 + 24\ 611 = \mathbf{40\ 400}$$

$$2653 + 51\ 246 = \mathbf{53\ 899}$$

$$25\ 398 - 22\ 157 = \mathbf{3241}$$

$$65\ 214 + 23\ 592 = \mathbf{88\ 806}$$

$$72\ 564 - 46\ 251 = \mathbf{26\ 313}$$

$$82\ 653 - 14\ 252 = \mathbf{68\ 401}$$

88 806 The elf is more than 1 metre tall	25 467 The elf is between 50 cm and 70 cm tall	26 313 The elf is less than 50 cm tall
40 400 The elf is between 90 cm and 1 m	13 797 The elf is more than 110cm tall	3241 The elf is the shortest elf
53 899 The elf is the tallest elf	68 401 The elf is between 80 cm and 90 cm tall	21 133 The elf is between 100 cm and 110 cm tall

Clue - The missing elf is between **50 cm** and **70 cm** tall.

The Mystery of the Missing Elf Maths Mystery Game **Answers**

Clue 4

In each row, colour the number that is the value of the underlined digit.

The column with the most correct answers will reveal a clue about the missing elf's age.

24 <u>9</u> 77	9	9000	900	90
305 10 <u>2</u>	2	20	2000	200
<u>1</u> 59 672	1	100 000	100	10
76 5 <u>9</u> 8	900	90	9000	9
63 <u>9</u> 84	90	90 000	9	900
51 06 <u>7</u>	7	7000	700	70
71 2 <u>9</u> 5	900	9000	90	9
64 <u>5</u> 44	5	50	5000	500
98 9 <u>8</u> 9	9	9000	900	90
The missing elf's age is...	25 - 50	50 - 75	75 - 100	100+

Clue - The missing elf is **25 - 50** years old.

The Mystery of the Missing Elf Maths Mystery Game **Answers**

Clue 5

Check if these maths statements are true or false. If it is true, put a tick. If it is false, put a cross.
Count the number of ticks and crosses.

If there are more ticks than crosses, the elf is right-handed.

If there are more crosses than ticks, the elf is left-handed.

	✓	✗
43 761 rounded to the nearest 10 is 43 760	✓	
38 769 rounded to the nearest 100 is 38 700		✗
98 346 rounded to the nearest 1000 is 98 000	✓	
175 308 rounded to the nearest 10 is 175 300		✗
62 921 rounded to the nearest 100 is 63 000		✗
343 652 rounded to the nearest 10 000 is 340 000	✓	
145 387 rounded to the nearest 100 000 is 100 000	✓	
96 826 rounded to the nearest 1000 is 96 000		✗
856 235 rounded to the nearest 100 000 is 900 000	✓	
Total	5	4

Clue - The elf is **right-handed** / left-handed.

(Circle the correct answer)

The missing elf is: Jasper