## The Mystery of the

 Missing Knight St. George's Day Maths Mystery GameAfter his brave battle against the dragon, Saint George was invited by the king to join him at a celebratory banquet.

Unfortunately, on his way to the banquet, Saint George became lost and could not find his way to the hall. When the guests realised that the guest of honour was missing, they set about trying to find him.

Solve the problems and find which guest discovered the whereabouts of missing Saint George.



## Clue 1: Equations

Find the value of $n$ in each equation. A bar model is provided to help you.
The solution that occurs the most will give a clue to who found Saint George.


| 18 |  |  |  |
| :---: | :---: | :---: | :---: |
| $n$ | $n$ | 10 |  |



## 2

The guest doesn't have a green cloak.


The guest doesn't have a blue cloak.

The guest doesn't have a red cloak.

Clue: The guest who found Saint George doesn't have a $\qquad$ cloak.

## Clue 2: Arithmetic

Find a path through the maze by colouring in the arithmetic calculations that are correct. The path will reveal a clue about the family emblem of the guest who found Saint George.

| START | $\begin{gathered} 306-9 \\ =297 \end{gathered}$ | $\begin{gathered} 32 \times 4 \\ =128 \end{gathered}$ | $\frac{2}{9}+\frac{5}{9}=\frac{7}{9}$ | $\frac{7}{10}-\frac{3}{10}=\frac{3}{10}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 928+100 \\ =1028 \end{gathered}$ | $\begin{gathered} 1017+392 \\ =1509 \end{gathered}$ | $\begin{gathered} 11-8.05 \\ =3.5 \end{gathered}$ | $\begin{gathered} 84 \div 7 \\ =13 \end{gathered}$ | $\begin{gathered} 6 \times 5 \times 3 \\ =75 \end{gathered}$ |
| $\begin{gathered} 176 \times 2 \\ =352 \end{gathered}$ | $\begin{gathered} 6.4+1.9 \\ =8.3 \end{gathered}$ | $\begin{gathered} 6.7-0.05 \\ =6.65 \end{gathered}$ | $\begin{gathered} 3408+2865 \\ =6274 \end{gathered}$ | $\begin{gathered} 70000-700 \\ =69300 \end{gathered}$ |
| $\begin{gathered} 207376-72198 \\ =35178 \end{gathered}$ | $\begin{gathered} 720 \div 9 \\ =8 \end{gathered}$ | $6^{2}=36$ | $\begin{gathered} 1440 \div 12 \\ =12 \end{gathered}$ | $\begin{aligned} & 1000 \times 1000 \\ & =1000000 \end{aligned}$ |
| $\begin{gathered} 6150 \div 5 \\ =1230 \end{gathered}$ | $\begin{gathered} 11.7-3.84 \\ =7.86 \end{gathered}$ | $5 \times 1 \frac{1}{2}=7 \frac{1}{2}$ | $\begin{aligned} & 47 \times 19 \\ & =1083 \end{aligned}$ | $\frac{2}{3}+\frac{1}{6}=\frac{5}{6}$ |
| $\begin{aligned} 47 & -9 \times 4 \\ & =11 \end{aligned}$ | $\frac{1}{5} \times \frac{1}{3}=\frac{1}{8}$ | $\begin{aligned} & 1.43 \times 8 \\ & =15.44 \end{aligned}$ | $\frac{3}{8} \div 3=\frac{1}{8}$ | $\begin{gathered} 20 \% \text { of } 160 \\ =32 \end{gathered}$ |
| The emblem of the guest who found Saint George is not a cross or horse. | The emblem of the guest who found Saint George is not a lion or horse. | The emblem of the guest who found Saint George is not a lion or dragon. | The emblem of the guest who found Saint George is not a cross or lion. | The emblem of the guest who found Saint George is not a dragon or horse. |

Clue: The family emblem of the guest who found Saint George isn't a $\qquad$ or $\qquad$ .

## Clue 3: Find Pairs of Values

Match the equation with the pair of values that make it correct.
The one remaining answer box will give you a clue about the guest who found Saint George.


$$
a=6, b=9
$$

The guest's horse is brown or black.

$$
a=12, b=5
$$ The guest's horse is chestnut or grey.

$$
a=7, b=13
$$

The guest's horse is grey or black.

$$
a=10, b=1
$$

The guest's horse is chestnut or black.
$a=6, b=3$
The guest's horse is chestnut or brown.
$a=2, b=11$ The guest's horse is grey or brown.

$$
a=8, b=4
$$

The guest's horse is black or chestnut.

$$
a=1, b=7
$$

The guest's horse is grey or chestnut.

$$
a=9, b=4
$$

The guest's horse is black or brown.
$\qquad$ or $\qquad$ horse.

## Clue 4: Statements about Shape and Measurement

Check if these maths statements are correct. If a statement is correct, put a tick.
If it is incorrect, put a cross. Count the number of ticks and crosses.
If there are more ticks than crosses, the guest who finds the lance is female.
If there are more crosses than ticks, the guest who finds the lance is male.

|  | Right | Wrong $x$ |
| :---: | :---: | :--- |
| $\begin{array}{c}\text { The distance from the centre of a circle } \\ \text { to the outside is the radius. }\end{array}$ |  |  |
| $\begin{array}{c}\text { A rectangle always has } 4 \\ \text { lines of symmetry. }\end{array}$ |  |  |
| A square with an area of $16 \mathrm{~cm}^{2}$ |  |  |
| has a perimeter of 16 cm. |  |  |$]$| If 5 miles is approximately 8 km, |
| :--- |
| 15 miles is approximately 20 km. |

Clue: The guest who found Saint George is female/male.
(Circle the correct answer)

## Clue 5: Pie Chart

This pie chart shows the colours of 24 knight's shields.

Circle the correct answer for each question. The column with the most correct answers will tell you the age of the guest who found Saint George.


Yellow


Blue


Green


Red


| How many shields <br> are yellow? | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| How many <br> shields are red? | 7 | 8 | 9 | 10 |
| What fraction of the <br> shields are green? | $\frac{1}{4}$ | $\frac{1}{5}$ | $\frac{1}{6}$ | $\frac{1}{8}$ |
| What percentage of the <br> shields are yellow? | $25 \%$ | $10 \%$ | $15 \%$ | $20 \%$ |
| What fraction of the <br> knights have a yellow or <br> green shield? | $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{3}{8}$ | $\frac{5}{8}$ |

Clue: The guest who found Saint George is aged $\qquad$ .

The guest who is responsible for finding Saint George is: $\qquad$ .

The Mystery of the Missing Knight St. George's Day Maths Mystery Game Answers
Clue 1: Equations

|  | n |  | n |  | n |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $4 \mathrm{n}=8$ | 2 | $4 \mathrm{n}=12$ | 3 | $7+n=11$ | 4 |
| $2 \mathrm{n}+10=18$ | 4 | $7-n=5$ | 2 | $16-\mathrm{n}=13$ | 3 |
| $8 n+2=18$ | 2 | $3 n+1=13$ | 4 | $28-8 n=12$ | 2 |

The guest who found Saint George doesn't have a green cloak.
Clue 2: Multiply and Divide by 10, 100 and 1000

| START | $\begin{gathered} 306-9 \\ =297 \end{gathered}$ | $\begin{gathered} 32 \times 4 \\ =128 \end{gathered}$ | $\frac{2}{9}+\frac{5}{9}=\frac{7}{9}$ | $\frac{7}{10}-\frac{3}{10}=\frac{3}{10}$ |
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The family emblem of the guest who found Saint George isn't a cross or horse.

## Clue 3: Find Pairs of Values

| $5 a=3 b-4$ | $a=7, b=13 \quad$ The guest's horse is grey or black. |
| :---: | :---: | :--- |
| $33-5 a=b$ | $a=6, b=3 \quad$ The guest's horse is chestnut or brown. |
| $2 a+15=3 b$ | $a=1, b=7 \quad$ The guest's horse is grey or chestnut. |
| $a+13=5 b$ | $a=12, b=5 \quad$ The guest's horse is chestnut or grey. |
| $5 a=8+8 b$ | $a=8, b=4 \quad$ The guest's horse is black or chestnut. |
| $4 a=2 b-14$ | $a=2, b=11 \quad$ The guest's horse is grey or brown. |
| $a-2 b=8$ | $a=10, b=1 \quad$ The guest's horse is chestnut or black. |
| $3 a-7=5 b$ | $a=9, b=4 \quad$ The guest's horse is black or brown. |

The guest who found Saint George has a grey or chesnut horse.

| Clue 4: Statements about Shape and Measurement | Right $\sqrt{ }$ | Wrong $x$ |
| :---: | :---: | :---: |
| The distance from the centre of a circle to the outside is the radius. | $\checkmark$ |  |
| A rectangle always has 4 lines of symmetry. |  | $x$ |
| A square with an area of $16 \mathrm{~cm}^{2}$ has a perimeter of 16 cm . | $\checkmark$ |  |
| If 5 miles is approximately 8 km , 15 miles is approximately 20 km . |  | $x$ |
| Two angles in a parallelogram are $70^{\circ}$. The other angles are $110^{\circ}$. | $\checkmark$ |  |
| The distance from one side of a circle through the centre and to the other side is the circumference. |  | $x$ |
| All right-angled triangles are isosceles triangles. |  | $x$ |
| If two lines intersect, the adjacent angles must add up to $180^{\circ}$. | $\checkmark$ |  |
| If a triangle has a base of 10 cm and height of 6 cm , its area is $30 \mathrm{~cm}^{2}$. | $\checkmark$ |  |
| Total | 5 | 4 |

The guest who found Saint George is female.

## Clue 5: Pie Chart

| How many shields <br> are yellow? | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| How many <br> shields are red? | 7 | 8 | 9 | 10 |
| What fraction of the <br> shields are green? | $\frac{1}{4}$ | $\frac{1}{5}$ | $\frac{1}{6}$ | $\frac{1}{8}$ |
| What percentage of the <br> shields are yellow? | $25 \%$ | $\frac{10 \%}{2}$ | $\frac{15 \%}{2}$ | $20 \%$ |
| What fraction of the <br> knights have a yellow or <br> green shield? | $\frac{1}{4}$ | $22-28$ | $29-35$ | $36-42$ |

The guest who found Saint George is aged 36-42.
The guest who is responsible for finding Saint George is Lady la Fay.

