

The Winter Olympics Mystery of the Sabotaged Bobsleigh Track Maths Game

You join us on day five of the Winter Olympics. The spectators have gathered in their hundreds to witness history being made today. 20 countries are going for gold in the four-man bobsleigh competition. The competitors have been training hard for the last four years - the stakes are high!

But wait! What's this?

Disaster! Someone has sabotaged the bobsleigh track by throwing sand on the track. It has been thrown down the track at different places and the whole event has been cancelled! Who would do such a dreadful act?

Your task is to solve the clues and use the descriptions of the suspects to unmask the saboteur!

Descriptions of the Suspects

| Name | Male or Female | Type of Hat | Sports Drink | Favourite Fruit | Height (cm) |
|-------------------|----------------|--------------|--------------|-----------------|-------------|
| Anton Alpine | M | bobble | Taystee | banana | 171 |
| Boris Biathlon | M | baseball cap | Pazazz | banana | 169 |
| Carter Curling | M | bobble | AllFresh | apple | 173 |
| Dabinn Driver | F | Arctic | Zingy | grapes | 164 |
| Ellie Eager | F | bobble | AllFresh | orange | 160 |
| Farhan Frost | M | bobble | Taystee | orange | 171 |
| Gurvinder Goforit | F | beanie | Zingy | banana | 159 |
| Hamish Halfpipe | M | bobble | Taystee | grapes | 176 |
| Ishmael Icicle | M | bobble | Taystee | banana | 179 |
| Jia Jump | F | Arctic | Zingy | grapes | 173 |
| Kacper Kool | M | Arctic | AllFresh | apple | 172 |
| Lisa Leaper | F | beanie | Pazazz | banana | 166 |
| Marius Mover | M | bobble | Taystee | banana | 175 |
| Nuwa Nearmiss | F | baseball cap | Zingy | grapes | 164 |
| Oscar Outward | M | bobble | Pazazz | banana | 176 |
| Peter Puck | M | Arctic | Taystee | orange | 177 |
| Rabiya Ravine | F | beanie | Zingy | apple | 163 |
| Seren Snow | F | Arctic | Taystee | orange | 161 |
| Tessa Track | F | beanie | AllFresh | banana | 165 |
| Usman Unsure | M | Arctic | Zingy | orange | 177 |
| Veronica Vroom | F | baseball cap | Pazazz | apple | 166 |
| Will Wonder | M | bobble | AllFresh | orange | 178 |
| Yura Yay | M | bobble | Taystee | banana | 173 |
| Zeba Zoom | F | beanie | Pazazz | grapes | 164 |
| Abigail Awesome | F | Arctic | Zingy | banana | 163 |
| Bertie Bobsleigh | M | bobble | Taystee | grapes | 175 |
| Charlie Cheer | M | bobble | AllFresh | orange | 177 |
| Daniyel Daring | M | bobble | Taystee | orange | 176 |
| Fiona Freeze | F | Arctic | Pazazz | banana | 163 |

Clue 1 Time Out

Match the statements in the stopwatches with the equivalent answer in the table below.
Solve the first clue using the words which are left over in the table.



How many hours are there in 3 days?



How many days are there in a fortnight?



How many days are there in April?



How many months are there in a quarter of a year?



How many minutes are there in 2 hours?



How many minutes are there in a quarter of an hour?



How many years are there in a decade?



How many seconds are there in 3 minutes?

| | | |
|--------------|-----------------|--------------|
| 30 a | 120 culprit | 24 the |
| 72 female | 7 saboteur | 180 under |
| 12 was | 14 bobsleigh | 100 male |
| 3 not | 10 fan | 15 didn't |

Answer:

Clue 2 Amazing Hats

A hat was found at the scene of the crime.

Begin at the start of the maze and follow a path by colouring all the multiples of 4 or 8 to discover the type of hat the saboteur dropped.

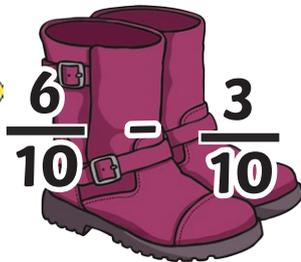
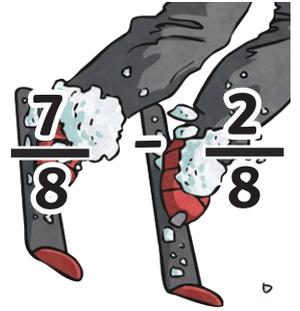
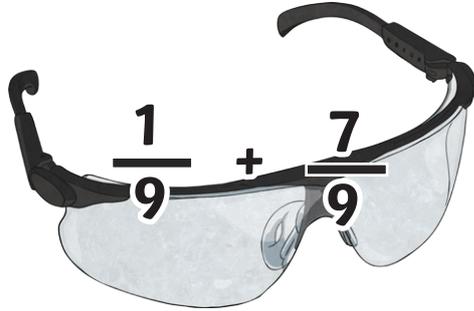
| | | | | | | | | | |
|-------|--------------|----|----|--------------|----|----|--------------|-----|----------------|
| START | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 6 | 12 | 24 | 9 | 33 | 21 | 13 | 2 | 19 | 25 |
| 2 | 5 | 8 | 32 | 30 | 46 | 55 | 60 | 17 | 30 |
| 7 | 10 | 14 | 20 | 16 | 48 | 30 | 40 | 60 | 35 |
| 15 | 9 | 18 | 22 | 27 | 28 | 52 | 56 | 66 | 44 |
| 42 | 50 | 11 | 26 | 31 | 36 | 40 | 45 | 50 | 35 |
| 81 | 45 | 13 | 66 | 27 | 15 | 96 | 19 | 100 | 12 |
| 18 | 23 | 37 | 35 | 30 | 42 | 44 | 80 | 22 | 18 |
| 26 | 67 | 70 | 8 | 23 | 16 | 1 | 64 | 16 | 10 |
| 18 | 32 beanie | 13 | 15 | 16 Arctic | 3 | 9 | 88 bobble | 14 | 22 baseball |

The saboteur dropped a _____ hat.

Clue 3 Frosty Fractions

Look at these fraction number statements.

Find the answers in the table. The words that are not used in the equipment will solve the third clue.



| | | |
|------------------------|------------------------|---------------|
| 5.0 saboteur | $\frac{3}{10}$ damaged | 6 sand |
| $\frac{8}{9}$ culprit | $\frac{3}{8}$ liked | 20 Taystee |
| 0.05 drinks | 21 Tangy | 35 track |
| $\frac{5}{8}$ Allfresh | 0.5 the | 24 Pazazz |

Answer:

Clue 4 Some Sporting Problems

Something was found at the scene of the crime. Solve the clue below and discover what it was.

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| a | b | c | d | e | f | g | h | i | j | k | l | m |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| n | o | p | q | r | s | t | u | v | w | x | y | z |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |

Spell out the answer to the fourth clue.

| | Answer | Letter |
|------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| $\frac{1}{2}$ of 26 | | |
| If ski helmets are in boxes of three and there are nine boxes altogether, how many helmets are there in total? | | |
| Double a dozen | | |
| Ice hockey pucks are sold in packs of five. How many pucks would there be if there are five packs? | | |
| $5 \times 4 + 5$ | | |
| $\frac{1}{4}$ of 56 | | |
| $\frac{1}{3}$ of 39 | | |
| $178 - 149$ | | |
| Three hundred and fourteen seats were sold in one area. Two hundred and ninety-seven of them were filled. How many remained empty? | | |
| How many bobsleigh competitors are there if there are seven teams of two? | | |
| 4×7 | | |
| $\frac{1}{10}$ of 200 | | |
| If there are nine pairs of skates, how many skates are there altogether? | | |
| $203 - 180$ | | |
| The number of hours in a day. | | |
| $30 \div 2$ | | |
| $230 \div \square = 23$ | | |
| If 12 tickets cost £132, how much does one ticket cost? | | |
| There are 300 seats in one section. If there are 30 rows, how many seats are in each row? | | |
| It is 20:54. The figure skating is running late and starts at 21:17. How many minutes do the spectators have to wait? | | |

| | | |
|---------------------------|--|--|
| $45 \div \square = 4.5$ | | |
| XXIII | | |
| $2.0 \times \square = 20$ | | |

Answer:

Clue 5 The Mystery Height

Work out these column addition and subtraction calculations. Whichever answer occurs the most often is the height of the bobsleigh track saboteur.

$$\begin{array}{r} 310 \\ - 139 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 117 \\ + 56 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 328 \\ - 149 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 122 \\ + 57 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 220 \\ - 45 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 521 \\ - 350 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ + 91 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 125 \\ + 48 \\ \hline \\ \hline \end{array}$$

The saboteur is _____ cm tall.

The name of the bobsleigh track saboteur is _____

Answers

Clue 1 Time Out

| | | |
|-------------------------|-----------------------------|---------------------------|
| 30 a | 120 culprit | 24 the |
| 72 female | 7 saboteur | 180 under |
| 12 was | 14 bobsleigh | 100 male |
| 3 not | 10 fan | 15 didn't |

The remaining words state: THE SABOTEUR WAS MALE

Clue 2 Amazing Hats

| | | | | | | | | | |
|-------|--------------|----|----|--------------|----|----|--------------|-----|----------------|
| START | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 6 | 12 | 24 | 9 | 33 | 21 | 13 | 2 | 19 | 25 |
| 2 | 5 | 8 | 32 | 30 | 46 | 55 | 60 | 17 | 30 |
| 7 | 10 | 14 | 20 | 16 | 48 | 30 | 40 | 60 | 35 |
| 15 | 9 | 18 | 22 | 27 | 28 | 52 | 56 | 66 | 44 |
| 42 | 50 | 11 | 26 | 31 | 36 | 40 | 45 | 50 | 35 |
| 81 | 45 | 13 | 66 | 27 | 15 | 96 | 19 | 100 | 12 |
| 18 | 23 | 37 | 35 | 30 | 42 | 44 | 80 | 22 | 18 |
| 26 | 67 | 70 | 8 | 23 | 16 | 1 | 64 | 16 | 10 |
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The saboteur dropped a bobble hat.

Clue 3 Frosty Fractions

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|------------------------|------------------------|---------------|
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SABOTEUR LIKED TAYSTEE DRINKS

Clue 4 Some Sporting Problems

| | Answer | Letter |
|------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| $\frac{1}{2}$ of 26 | 13 | d |
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| $5 \times 4 + 5$ | 25 | p |
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| $\frac{1}{3}$ of 39 | 13 | d |
| $178 - 149$ | 29 | t |
| Three hundred and fourteen seats were sold in one area. Two hundred and ninety-seven of them were filled. How many remained empty? | 17 | h |
| How many bobsleigh competitors are there if there are seven teams of two? | 14 | e |
| 4×7 | 28 | s |

DROPPED THE SKIN OF A BANANA

Clue 5 The Mystery Height

The saboteur is 173cm tall.

The bobsleigh track saboteur is Yura Yay!

| | | |
|-----------------------------------------------------------------------------------------------------------------------|----|---|
| $\frac{1}{10}$ of 200 | 20 | k |
| If there are nine pairs of skates, how many skates are there altogether? | 18 | i |
| $203 - 180$ | 23 | n |
| The number of hours in a day. | 24 | o |
| $30 \div 2$ | 15 | f |
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| If 12 tickets cost £132, how much does one ticket cost? | 11 | b |
| There are 300 seats in one section. If there are 30 rows, how many seats are in each row? | 10 | a |
| It is 20:54. The figure skating is running late and starts at 21:17. How many minutes do the spectators have to wait? | 23 | n |
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