

The Winter Olympics Mystery of the Speed Skaters' Skates Maths Game

The Winter Olympics are in full flow. Hats, scarves and gloves are worn by spectators, who are eager to see the speed skaters speed their way around the track.

But wait! What's this? Someone has sneaked into the changing rooms and mixed up all the speed skaters' skates! This terrible crime could cause huge problems for the skaters. The race will start late! What if they cannot find all the matching pairs?

Your task is to solve the mystery of who mixed up the skaters' skates. Use the description of the suspects and solve the maths clues to find out who did it.

Good luck!



Descriptions of the Suspects

Name	Male or Female	Did They Wear a Hat?	Favourite Sport	Height	Favourite Hot Drink
Archie	male	yes	ice hockey	tall	hot chocolate
Betty	female	yes	ice skating	tall	hot chocolate
Casper	male	no	bobsleigh	short	hot chocolate
Dave	male	yes	ice hockey	tall	tea
Evie	female	no	ice skating	short	tea
Frances	female	yes	ice hockey	short	hot chocolate
Gino	male	yes	snowboard	short	hot chocolate
Halim	male	no	ice skating	tall	coffee
Isabelle	female	yes	snowboard	tall	tea
Ju	female	no	bobsleigh	short	hot chocolate
Karol	male	no	ice skating	tall	hot chocolate
Lowri	female	yes	ice hockey	tall	hot chocolate
Morgan	male	no	snowboard	short	hot chocolate
Nikki	female	no	bobsleigh	tall	coffee
Olly	male	yes	ice hockey	tall	tea
Pierce	male	yes	bobsleigh	short	tea
Rachel	female	no	ice skating	tall	coffee
Shi	male	no	snowboard	short	hot chocolate
Tia	female	yes	ice hockey	short	coffee
Uri	male	no	bobsleigh	tall	tea

Clue 1 Sport Problems

Check whether these statements are correct? Read the statements and see if you think they are true or false. Tick your answer and count up how many ticks and crosses you have.

	True 	False 
If there are six pairs of skates, there must be 12 skates altogether.		
If there are twelve helmets altogether and half of them are worn in a race, that leaves six not worn.		
If there are four men in one bobsleigh, double the amount would be ten men.		
If there are twenty players for one ice hockey team, and three were injured, that would leave seventeen left to play.		
If there are six skiers with two poles each, there must be ten poles altogether.		
If there are five pairs of ice skaters performing in the afternoon, that equals ten people altogether.		
If there are five teams of six speed skaters, that means there are thirty skaters altogether.		

Count up the number of ✓ and X.

If there are more ticks than crosses, the culprit wore a hat.

If there are more crosses than ticks, the culprit did **not** wear a hat.

Circle the correct answer:

Answer: The culprit did /did not wear a hat.

Clue 2 More or Less

Use the < or > sign in the skates to make the statements correct.

28		30	61		51	13		31
16		19	17		14	40		32
25		22	18		12			

Count up the number of > you have used.

Count up the number of < you have used.

If you have used more >, the culprit is tall.

If you have used more <, the culprit is short.

The culprit is _____.



Clue 3 Skiing Maze

Help the skier to follow the path down the slopes by counting in 5s to find if the skate swapper was male or female.

Start	5	6	7	8	9	10
20	10	30	40	42	44	46
2	15	20	50	60	65	70
4	6	25	30	70	80	75
8	10	26	35	75	90	77
12	30	28	40	45	100	110
14	32	33	41	50	30	45
16	35 male	36	42	55	60 female	15

The skate swapper was _____.

Clue 4 A Total of Twenty

What number would you add to the hockey sticks to make 20?

Colour the numbers in the table below when you have found each answer.













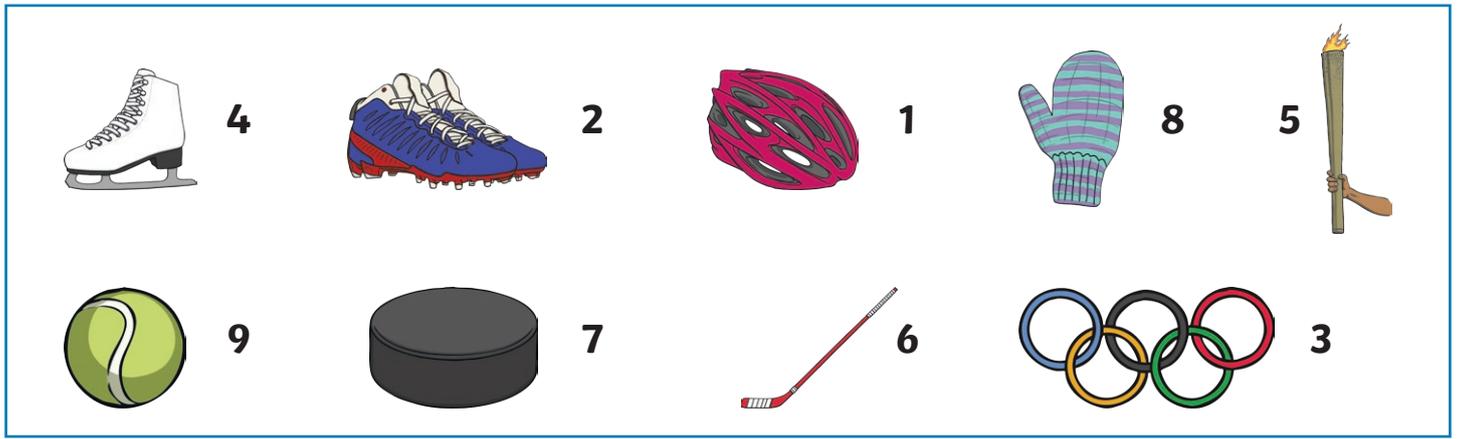


2 liked	15 skate	18 nothing
13 not	12 coffee	17 drinking
11 the	9 have	19 chocolate
4 hot	6 swapper	10 tea

Put the words into a sentence to solve clue number four.

Answer:

Clue 5 Sporting Code Breaker



Example:

In the number   , what is  worth? 20

1. In the number   , what is  worth?

2. In the number   , what is  worth?

3. In the number   , what is  worth?

4. In the number   , what is  worth?

5. In the number   , what is  worth?

6. In the number   , what is  worth?

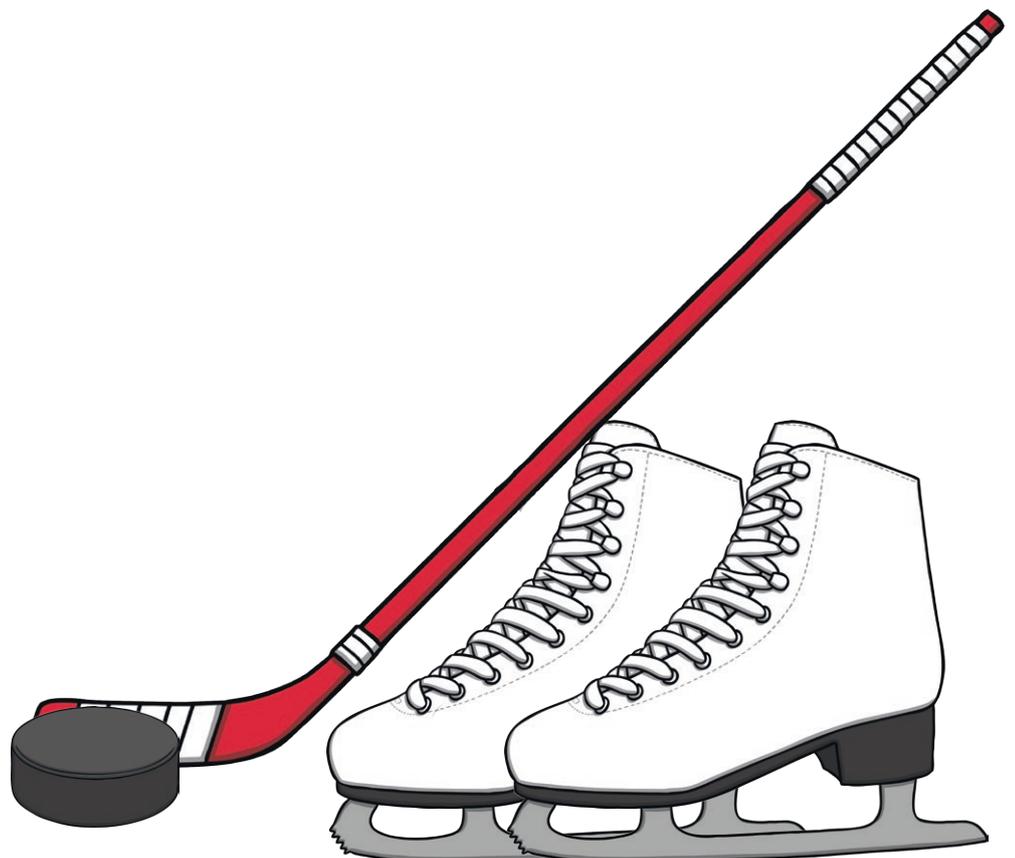
7. In the number   , what is  worth?

7 swapper	3 snowboard	80 skate	6 didn't
8 bobsleigh	2 ice	40 have	10 hockey
30 best	1 the	60 liked	70 skating

Answer:

Have you solved the mystery of who mixed up the speed skaters' skates at the Winter Olympics?

It is _____ .



Answers

Clue 1 Sport Problems

Check whether these statements are correct? Read the statements and see if you think they are true or false. Tick your answer and count up how ticks and crosses you have.

	True 	False 
If there are six pairs of skates, there must be 12 skates altogether.		
If there are twelve helmets altogether and half of them are worn in a race, that leaves six not worn.		
If there are four men in one bobsleigh, double the amount would be ten men.		
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If there are six skiers with two poles each, there must be ten poles altogether.		
If there are five pairs of ice skaters performing in the afternoon, that equals ten people altogether.		
If there are five teams of six speed skaters, that means there are thirty skaters altogether.		

There was more ✓. The culprit wore a hat.

Clue 2 More or Less

Use the < or > sign in the skates to make the statements correct.

28		30	61		51	13		31
16		19	17		14	40		32
25		22	18		12			

Count up the number of > you have used.

Count up the number of < you have used.

If you have used more >, the culprit is tall.

If you have used more <, the culprit is short.

The culprit is **tall**.

Clue 3 Skiing Maze

Help the skier to follow the path down the slopes by counting in 5s to find if the skate swapper was male or female.

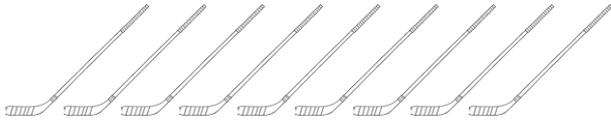
Start	5	6	7	8	9	10
20	10	30	40	42	44	46
2	15	20	50	60	65	70
4	6	25	30	70	80	75
8	10	26	35	75	90	77
12	30	28	40	45	100	110
14	32	33	41	50	30	45
16	35 male	36	42	55	60 female	15

The skate swapper was **Female**.

Clue 4 A Total of Twenty

What number would you add to the hockey sticks to make 20?

Colour the numbers in the table below when you have found each answer.



11

15

6

2

17

4

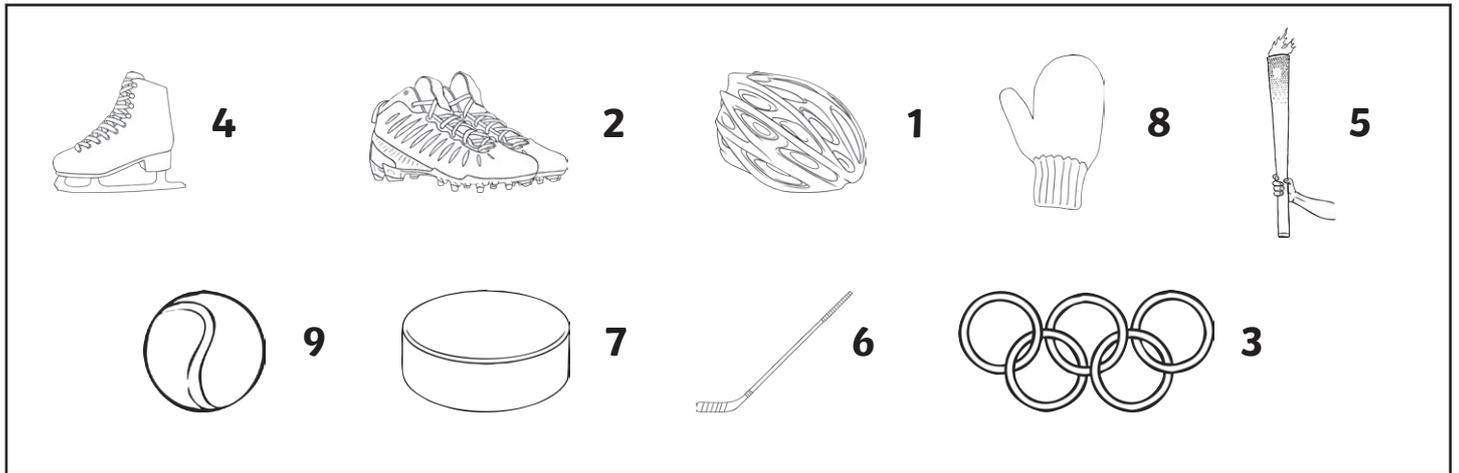
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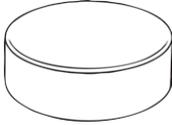
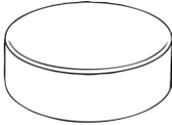
2 liked	15 skate	18 nothing
13 not	12 coffee	17 drinking
11 the	9 have	19 chocolate
4 hot	6 swapper	10 tea

Put the words into a sentence to solve clue number four.

Answer: The skate swapper liked drinking hot chocolate.

Clue 5 Sporting Code Breaker



1. In the number   , what is  worth? 1
2. In the number   , what is  worth? 80
3. In the number   , what is  worth? 7
4. In the number   , what is  worth? 60
5. In the number   , what is  worth? 2
6. In the number   , what is  worth? 10
7. In the number   , what is  worth? 30

7 swapper	3 snowboard	80 skate	6 didn't
8 bobsleigh	2 ice	40 have	10 hockey
30 best	1 the	60 liked	70 skating

Answer: **The skate swapper liked ice hockey best.**

Have you solved the mystery of who mixed up the speed skaters' skates at the Winter Olympics?

It is **Lowri**