

# Study 7

3(intact streak, broken streak, repairable broken streak) between subjects conditions

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## *Instructions:*

In this study, you will be playing word and number games, much like you might do for fun on an app.

You will test out an app by playing five word and/or number games, then answering some questions about your experience. **You do not need to get the game correct to continue; just try your best.**

In order to participate in this study, you must be using **Chrome** or **Firefox** on a **computer**. Otherwise, the game may not load properly.

In the next few pages, we will explain how to play the games. Then, you will be able to start!

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Page Break

You will be testing out one or two different games today.

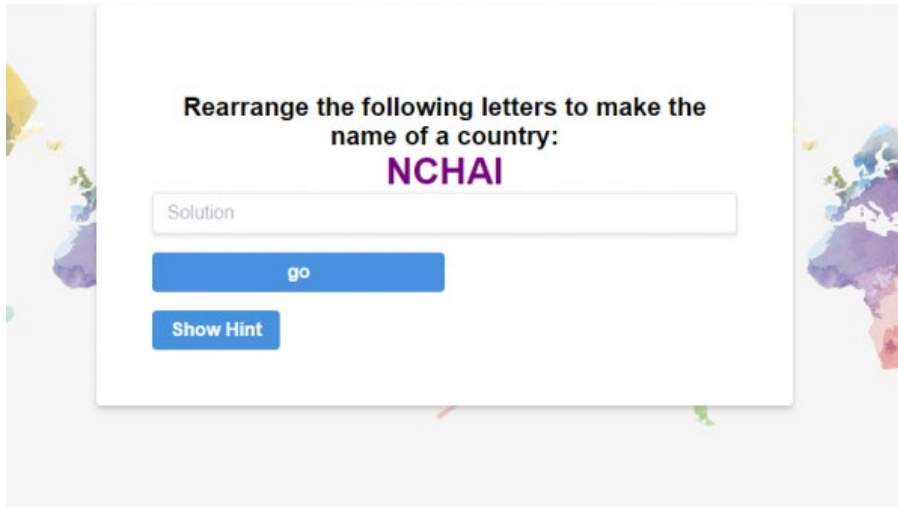
One game you can play is **WORD JUMBLE**, a game where you have to unscramble a series of letters to create a word.

Another game you can play is NUMBER SUMS, a game where you have to find the two numbers in a box that add up to a given total.

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Below is an example screenshot from WORD JUMBLE:



Rearrange the following letters to make the name of a country:

**NCHAI**

Solution

go

Show Hint

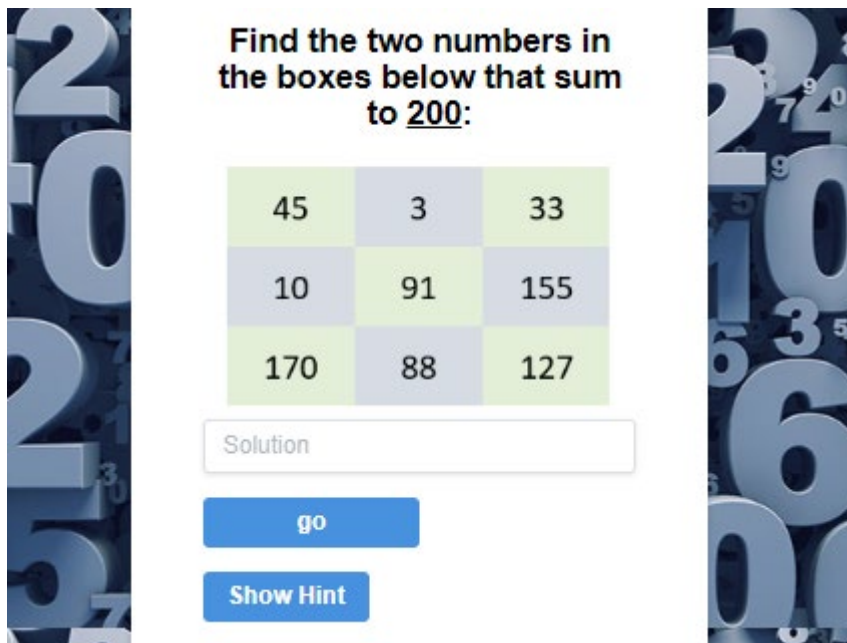
To complete the jumble, you would put your answer (CHINA) into the 'solution' textbox and hit 'go.'

If you get stuck, you can click 'Show Hint' to see what letter the word starts with!

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Page Break

Below is an example screenshot from NUMBER SUMS:



Find the two numbers in the boxes below that sum to 200:

45	3	33
10	91	155
170	88	127

Solution

go

Show Hint

To solve the sum, you would put your answer ( $87 + 113$ ) into the 'solution' textbox and hit 'go.'

If you get stuck, you can click 'Show Hint' to see what columns or rows the numbers are located in!

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Page Break

Before you finish reading all of the game instructions, please pick which game you would like to start playing with:

- ☐ Word Jumble (1)
- ☐ Number Sums (2)

[Participants' choices changed the instructions and games they saw, as indicated in blue]

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Page Break

Thanks for choosing to start with **NUMBER SUMS/WORD JUMBLES!**

**Sums/jumbles** will be counted towards your **game tracker** as long as you have seen them; in other words, **they count even if you don't answer the **sum/jumble** correctly.**

For example, once you attempt one **sum/jumble**, your game tracker will look like this:

**Sums attempted: 1**



OR

**Jumbles attempted: 1**



**Only **sums/jumbles** (and not **jumbles/sums**) will be counted towards your game tracker.**

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Page Break

We are testing these games for an app, so sometimes we may already have had enough people complete the game you are about to play. If that is the case, you will see a message like the one below:

*Unfortunately, we have reached the quota of players for this game.*

This message is not a sign that you have messed up or that the app is broken.

If you see such a message, you will be able to move on to a new game after a few seconds. You will only see this type of message once (if at all).

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The following questions are to make sure you understand how the game works. Please answer if the statements are true or false.

[Participants had to correctly answer the following questions to proceed]

Below is an example game tracker:

**Sums attempted: 1**



**Jumbles attempted: 1**



OR

If you answer a **sum/jumble incorrectly**, it still is added to your game tracker.

☐ True (1)

☐ False (2)

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If you answer a **jumble/sum** from the **word jumble/number sum** game, it will added to your game tracker.

☐ True (1)

☐ False (2)

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If you see a message about reaching a quota of players for a given game, it means you or the app have messed up in some way.

☐ True (5)

☐ False (6)

Your first games will be from the [number sums/word jumbles](#) game, but you may also play games from the [word jumble/number sum](#) game.

☐ True (1)

☐ False (2)

You will play five games in this study.

☐ True (1)

☐ False (2)

**Stimuli:**

[Participants who chose to play number sums saw the following games.

Sums attempted: 0

Find the two numbers in the boxes below that sum to 200:

45	3	33
10	91	155
170	88	127

Solution

go

Show Hint

Page Break

Sums attempted: 1

✓

The answer was **45** and **155**.

Press the arrow to go on to the next game!

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Page Break

**Sums attempted: 1**

✓

Find the two numbers in the boxes below that sum to 200:

186	80	120
102	17	98
28	114	8

Solution

**go**

**Show Hint**

Page Break

**Sums attempted: 2**

✓ ✓

The answer was **102 and 98**.

Press the arrow to go on to the next game!

**>>**

Page Break

Sums attempted: 2

✓ ✓

Find the two numbers in the boxes below that sum to 200:

18	80	135
10	99	140
128	72	191

Solution

[go](#)

[Show Hint](#)

Page Break

Sums attempted: 3

✓ ✓ ✓

Congrats, you have a streak!

The answer was 128 and 72.

Press the arrow to go on to the next game!

Page Break



*Intact streak* condition:

Sums attempted: 3

✓ ✓ ✓

Congrats, you have a streak!

Find the two numbers in the boxes below that sum to 200:

166	55	191
125	9	14
114	100	76

Solution

go

Show Hint

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Sums attempted: 4

✓ ✓ ✓ ✓

Congrats, you have a streak!

The answer was 9 and 191.

Press the arrow to select your last game.

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Page Break

*Broken streak* conditions:

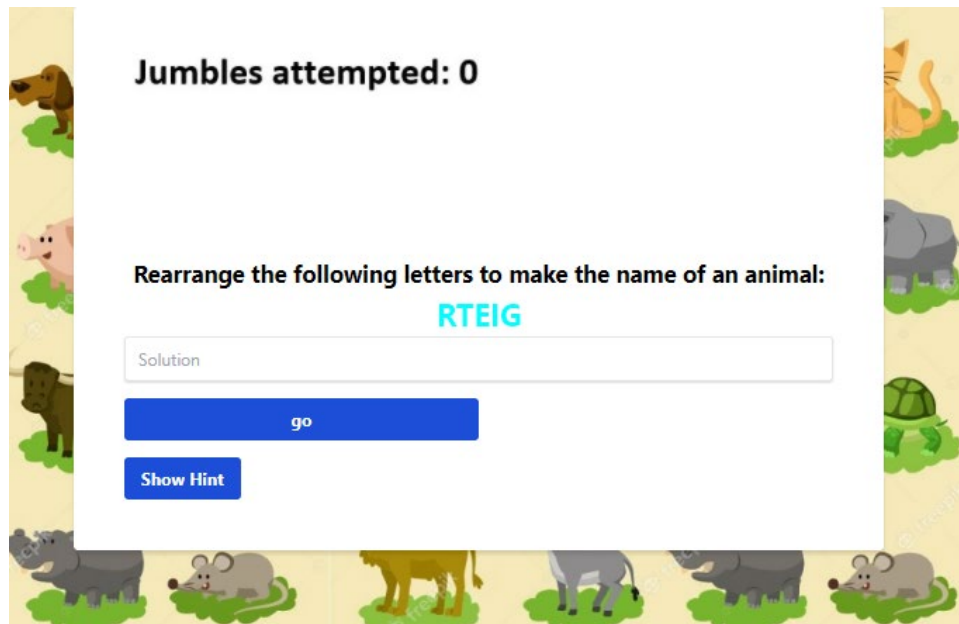
Unfortunately, we have reached the quota of players for this word jumble.

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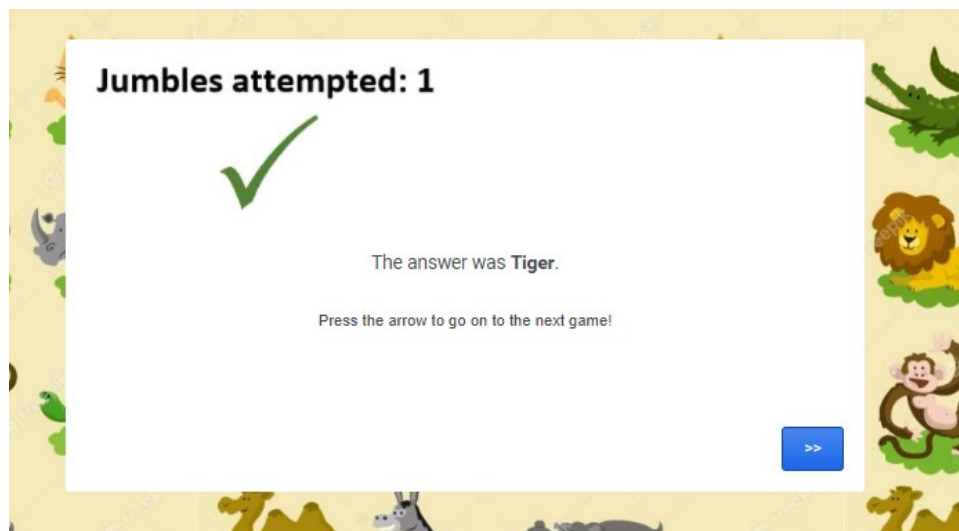
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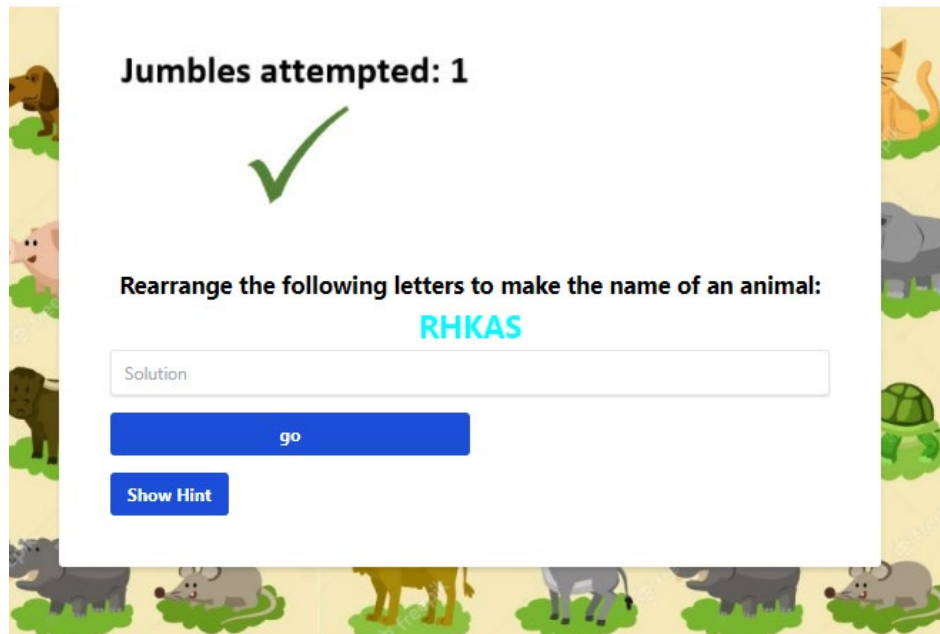
[Participants who chose to play word jumbles saw the following games.]



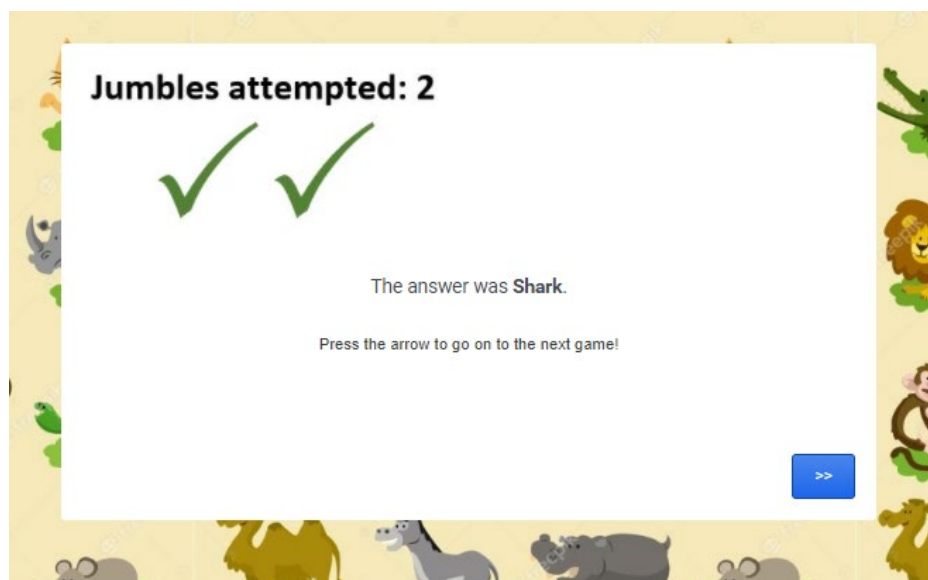
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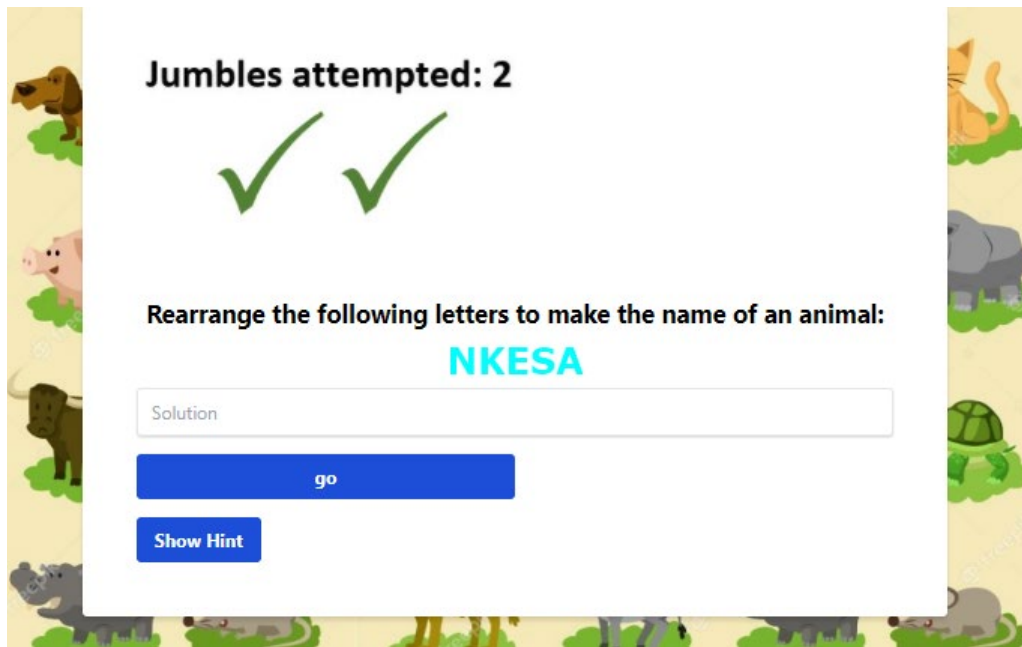
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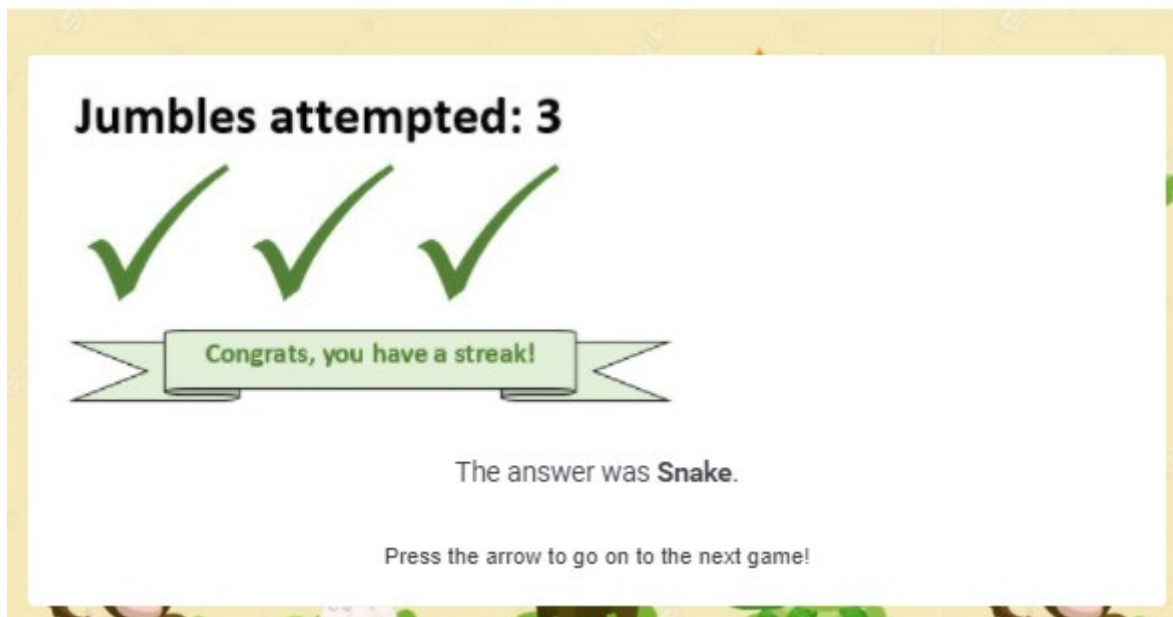
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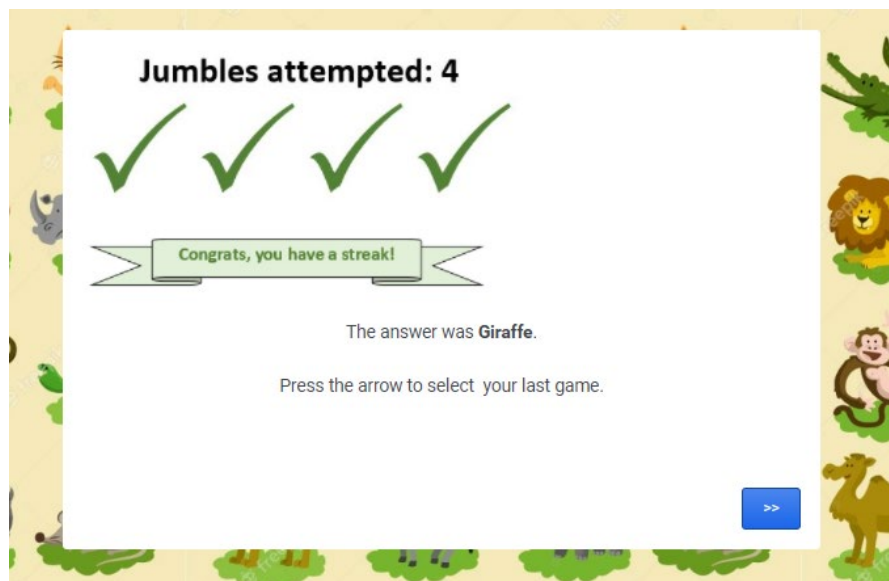


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*Intact streak* condition:



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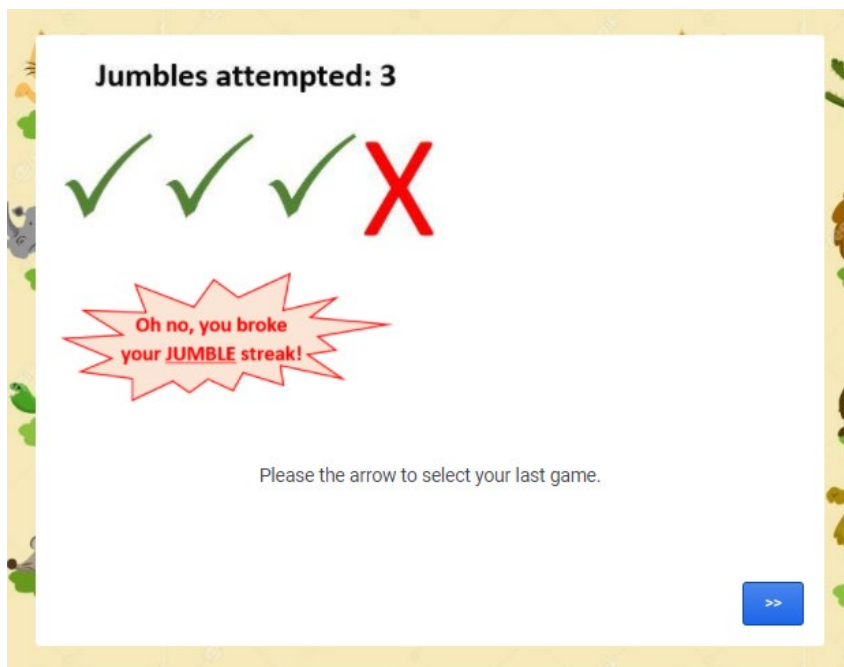


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*Broken streak* conditions:

*Unfortunately, we have reached the quota of players for this word jumble.*

Page Break



*At the end of the study, based on DV choice:*

*Display This Question:*

*If Choice = sum*

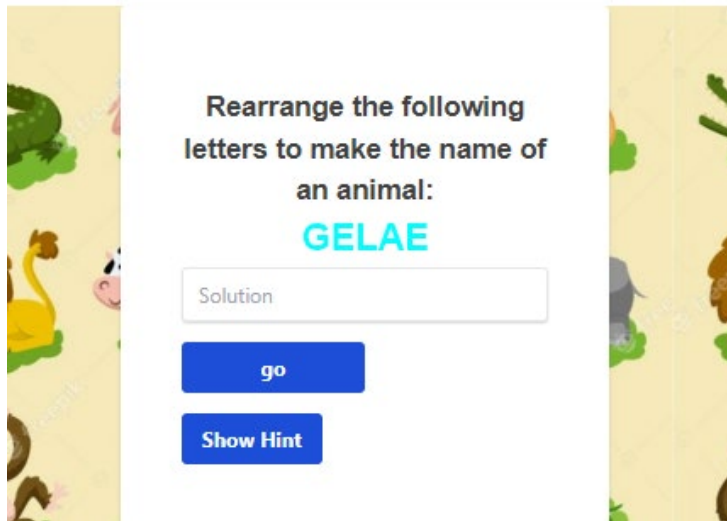
**Find the two numbers in  
the boxes below that sum  
to 200:**

16	36	11
25	110	49
114	164	130

Solution

Display This Question:

If Choice = jumble



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[Participants then saw their final game tracker, reflecting the checkmark or X based on their last game and condition]

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The answer was **36 and 164**. / The answer was **Eagle**.

You've finished all available games! Please press the arrow button to continue to the last part of the study.



**Main Questions:**

**Note that at the top of each screen for the following questions, participants saw an image of their tracker (depending on condition)**

**Main DV:**

**Intact streak condition:** If you stick with NUMBER SUMS/WORD JUMBLES, you will keep your streak. If you switch to WORD JUMBLE/NUMBER SUM, you will break your streak.

**Broken streak condition:** Whether you choose WORD JUMBLE or NUMBER SUMS, your streak will still be broken.

**Repairable broken streak condition:** If you stick with NUMBER SUMS/WORD JUMBLES, you will restore your streak. In other words, your streak will be repaired to 4 in a row. If you switch to WORD JUMBLE/NUMBER SUMS, you will still have a broken streak.

Please select what you would like to play for your last game:

☐ WORD JUMBLES (1)

☐ NUMBER SUMS (2)

**Instructions for measures:**

Please answer the following questions about how you felt **after playing your most recent game**.

**Sense of accomplishment measures:**

How successful did you feel? [1 Extremely unsuccessful, 11 Extremely successful]

How effective did you feel? [1 Extremely ineffective, 11 Extremely effective]

How much did you feel like you had achieved something? [1 Not at all, 11 A great deal]

How proud did you feel? [1 Not at all, 11 Extremely]

How much did you feel like you had accomplished something? [1 Not at all, 11 A great deal]

How much did your past playing behavior push you to stick with playing JUMBLES/SUMS for your last game? [1 Not at all, 11 A great deal]

How determined were you to keep playing JUMBLES/SUMS? [1 Not at all, 11 Extremely]

How much did you feel driven to continue playing JUMBLES/SUMS? [1 Not at all, 11 Extremely]

How much did you feel compelled to play more JUMBLES/SUMS? [1 Not at all, 11 Extremely]

*Negative emotion measures:*

How angry did you feel? [1 Not at all, 11 Extremely]

How upset did you feel? [1 Not at all, 11 Extremely]

How disappointed did you feel? [1 Not at all, 11 Extremely]

How annoyed did you feel? [1 Not at all, 11 Extremely]

*Additional questions:*

Why did you choose to play NUMBER SUMS/WORD JUMBLE for your last game? [free response]

How enjoyable were these games? [1 Extremely unenjoyable, 11 Extremely enjoyable]

How much did you like these games? [1 Extremely disliked, 11 Extremely liked]

How much did you feel that you should regulate or constrain yourself from doing too many games? [1 Not at all, 11 A great deal]

How much were you focused on attempting more games? [1 Not at all, 11 A great deal]

How much were you aware of your streak of attempting the games? [1 Not at all, 11 Extremely]

Do you have any apps with games like this on your phone, tablet, or computer? [Yes/No]

*Display This Question:*

*If Yes*

How often do you use apps to play games like this? [1 Almost never, 7 Every day]

Please list the names of these games/apps below:

*Demographics:*

What is your gender? [Male (1), Female (2), Other/prefer not to say (3)]

What is your age? [numeric free response]

Please write any comments or feedback regarding this survey below. [free response]