

Can you spot the difference?

Do you like playing "spot the difference" between two images? We hope so because this is exactly what this quiz will be! You will be asked to detect small differences in colour between images. The better you are, the more points you will get! You will be able to see your score at the end of the survey. The survey takes about 5-12min to complete. Please do it on a computer or tablet, not on a phone, and maximize the browser to ensure the pictures are all visible at once.

Before we get to the main section of this quiz, you will have the opportunity to read the participant information. We will need your consent to participate in this study, if you don't agree with the conditions of this study, you can just close this website.

Participant Information

Study Title: Why bananas look yellow.

Researcher: Christoph Witzel, C.Witzel@soton.ac.uk

ERGO Number: 59644

You are being invited to take part in the above research study. To help you decide whether you would like to take part or not, it is important that you understand why the research is being done and what it will involve. Please read the information below carefully and ask questions if anything is not clear or you would like more information before you decide to take part in this research. You may like to discuss it with others but it is up to you to decide whether or not to take part. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

We will investigate what kind of colour information is relevant for perception of object colours.

Why have I been asked to participate?

Anybody can participate.

What will happen to me if I take part?

If you participate in the study, you will be asked to indicate which of the object images differs in colour from three reference images. The survey will take about 5-12min.

Are there any benefits in my taking part?

You will be contributing toward gaining knowledge about the colour perception.

Are there any risks involved?

We foresee no physical or psychological risk for you to take part.

Will my participation be confidential?

All data is anonymous, which means that they do not allow us to identify you. No other recording (video or audio) will be made.

What should I do if I want to take part?

Just click that you agree at the very beginning and you can then start answering the questions.

What happens if I change my mind?

You can stop taking part at any time by simply leaving the website. We highlighted the last step for recording your data to give you the opportunity to leave the website before data is

recorded at the end of this study.

What will happen to the results of the research?

Deidentified results of this study will be reported as part of a larger research program, in academic conferences and/or journals, so you'll remain anonymous in all stages of the research. If you wish to receive a summary of the research findings, please contact Christoph Witzel at c.witzel@soton.ac.uk; the research team will email you the summary report once it's ready.

Where can I get more information?

For more information on this study, please contact Christoph Witzel at c.witzel@soton.ac.uk ([homepage here](#)). You may also contact him after you've finished the study for questions, concerns, and feedback.

What happens if something goes wrong?

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email fshs-rso@soton.ac.uk

Data Protection Privacy Notice

The University of Southampton conducts research to the highest standards of research integrity. Please find the University's Data Privacy Notice here:

<https://www.southampton.ac.uk/about/governance/policies/privacy-policy.page>

Data storage

The anonymous data will be kept securely on a password protected computer and will be made publicly available in the open science frame work after publication.

Thank you for taking the time to read the information and considering taking part in the research.

Please check below before starting the experiment. Otherwise you can simply close the website.

I am over 18 years old and I agree

Warm-up

Warm-up questions

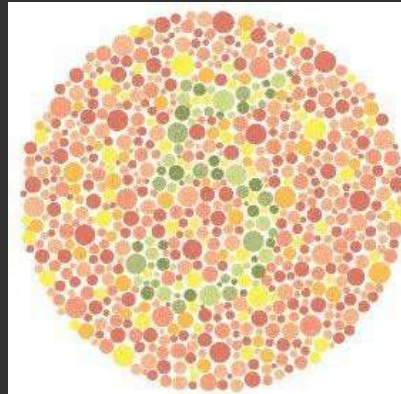
What is your gender?

- Male
- Female
- Other

What is your age?

Have you any known colour deficiencies in your vision?

Colour deficiency is often tested using images like the coloured one below showing a number 5.



- No, as shown by a colour vision test.
- I don't know
- Yes, I have colour vision deficiencies
- No, but never tested

Please note...

...that this task will be particularly difficult if you have any colour deficiencies. It would be helpful for us to obtain your data, but it may also be frustrating for you if you cannot see the differences. So, feel free to opt out at this point by closing the window. If you choose to continue, that is also fine and it does not matter if you can't always see the difference.

Instructions

INSTRUCTIONS

On the following slides you will be presented with four images, one of these images will be different from the other three. All you need to do is select the image that you believe to be different from the other three by clicking it with your mouse. You can now practice this with the following two practice trials!

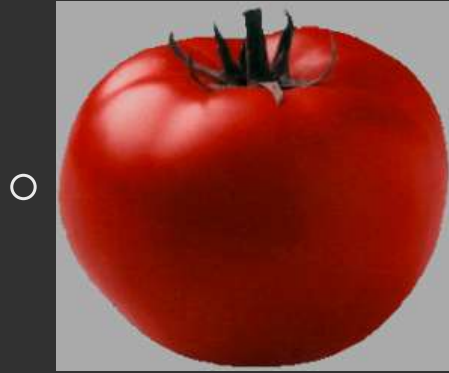
Please select the image that you believe is different from the others



Correct Response:
Bottom Right

Example: Tomato

Please select the image that you believe is different from the others



Correct Response:
Bottom Right

START

Ok, now its getting serious! Please try to answer as quickly as you can while making sure you choose the correct one ... well, if you can spot the odd one at all; some of those trials are really difficult! Anyway, have fun and good luck!

Dress One Hue

Please select the image that you believe is different from the others

Correct Response:
Top Left



Dress Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Top Right



Dress Rotated Minus

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Shoe One Hue

Please select the image that you believe is different from the others

Correct Response:
Top Left



Shoe Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Shoe Rotated Minus

Please select the image that you believe is different from the others

Correct Response:
Top Left



Pig - One Hue

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Pig Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Rose One Hue

Please select the image that you believe is different from the others



Correct Response:
Bottom Right

Rose Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Top Right

Rose Rotated Minus

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Strawberry One Hue

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Strawberry Rotated Plus

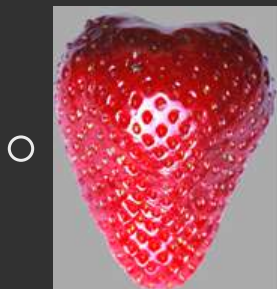
Please select the image that you believe is different from the others



Correct Response:
Top Right

Strawberry Rotated Minus

Please select the image that you believe is different from the others



Correct Response:
Bottom Right

Cherries One Hue

Please select the image that you believe is different from the others



Correct Response:
Top Right

Cherries Rotated Plus

Please select the image that you believe is different from the others

Correct Response:
Top Left



Cherries Rotated Minus

Please select the image that you believe is different from the others



Correct Response:
Top Right

Carrot One Hue

Please select the image that you believe is different from the others



Correct Response:
Bottom Left



Carrot Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Top Right



Carrot Rotated Minus

Please select the image that you believe is different from the others

Correct Response:

Top Left

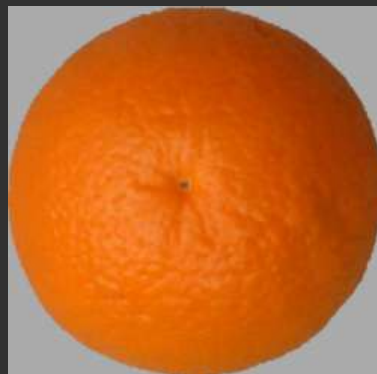
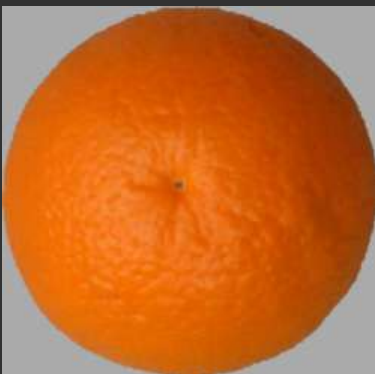
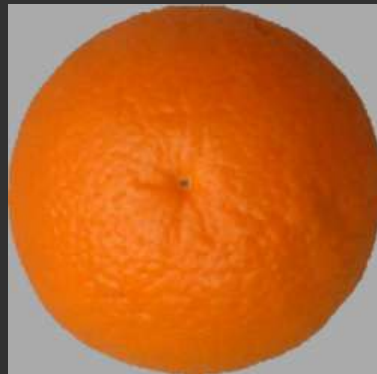
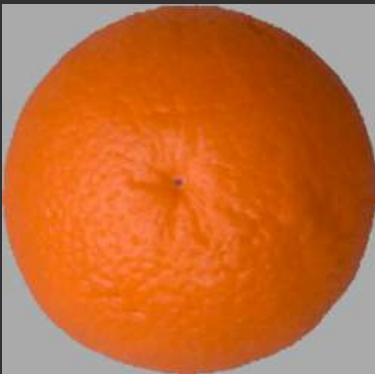


Orange One Hue

Please select the image that you believe is different from the others

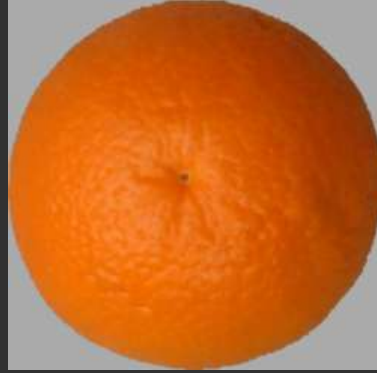
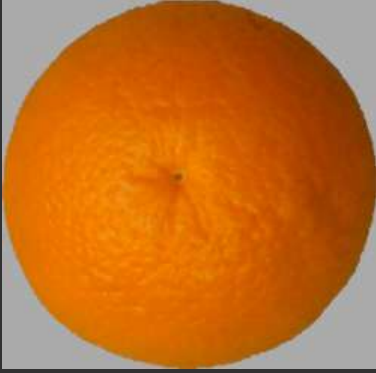
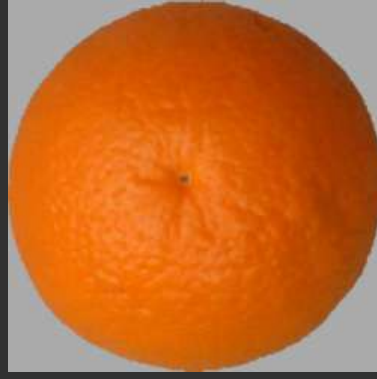
Correct Response:

Top Left



Orange Rotated Plus

Please select the image that you believe is different from the others

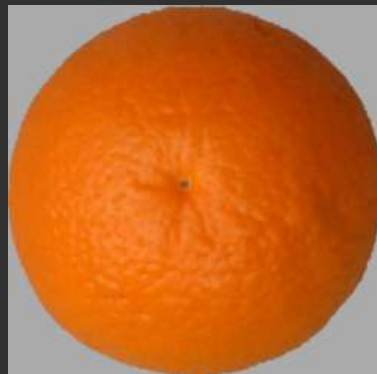
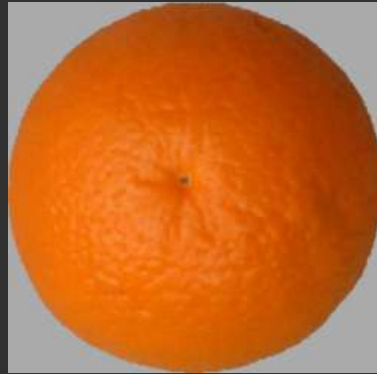
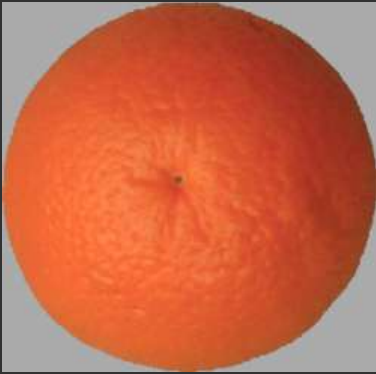


Correct Response:
Bottom Left

Orange Rotated Minus

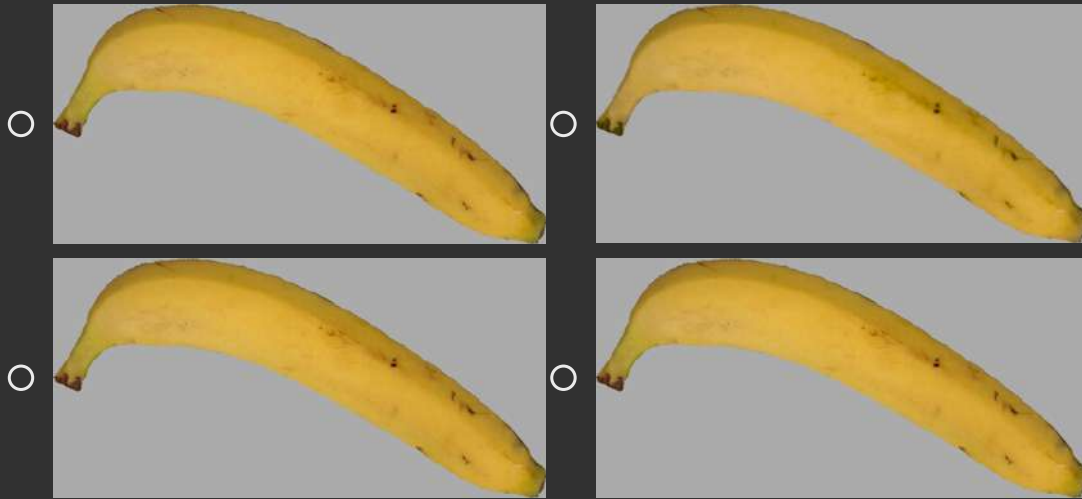
Please select the image that you believe is different from the others

Correct Response:
Top Left



Banana One Hue

Please select the image that you believe is different from the others

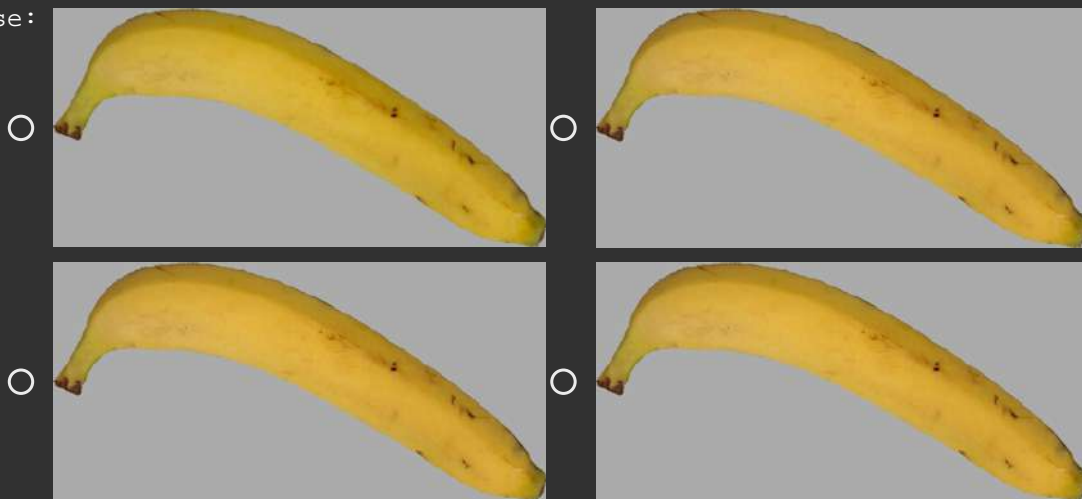


Correct Response:
Top Right

Banana Rotated Plus

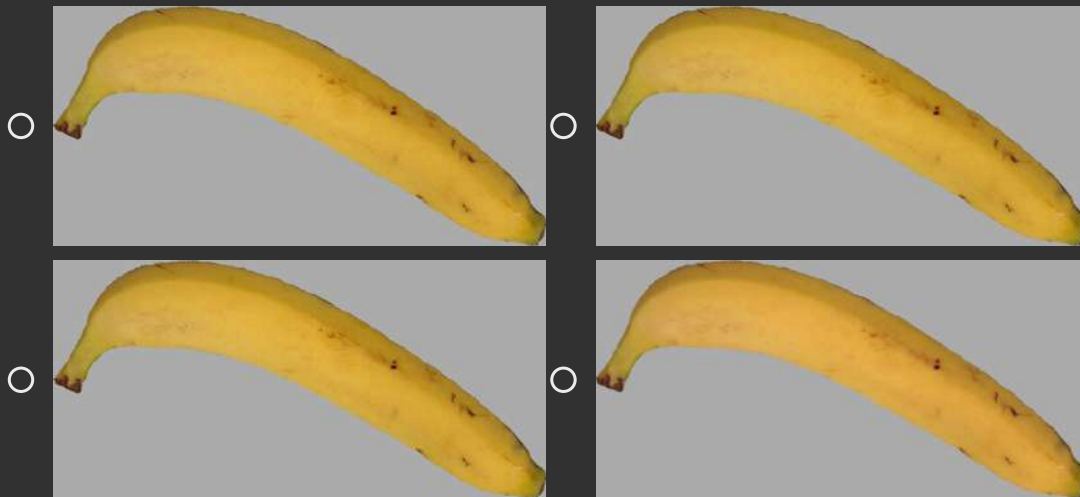
Please select the image that you believe is different from the others

Correct Response:
Top Left



Banana Rotated Minus

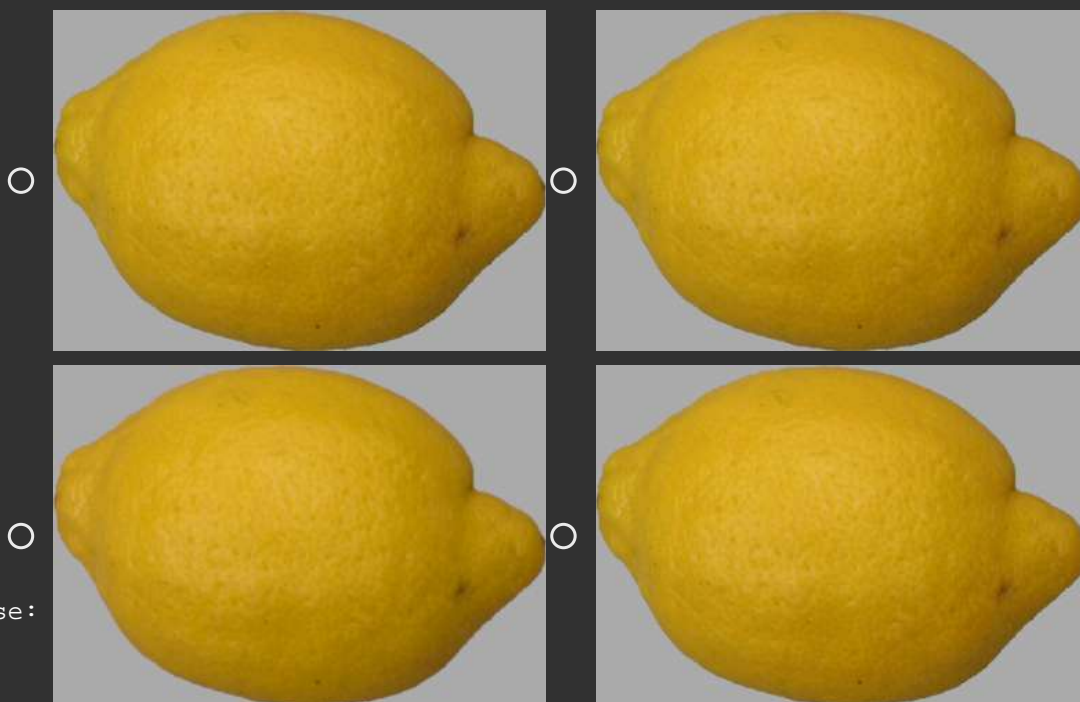
Please select the image that you believe is different from the others



Correct Response:
Bottom Right

Lemon One Hue

Please select the image that you believe is different from the others

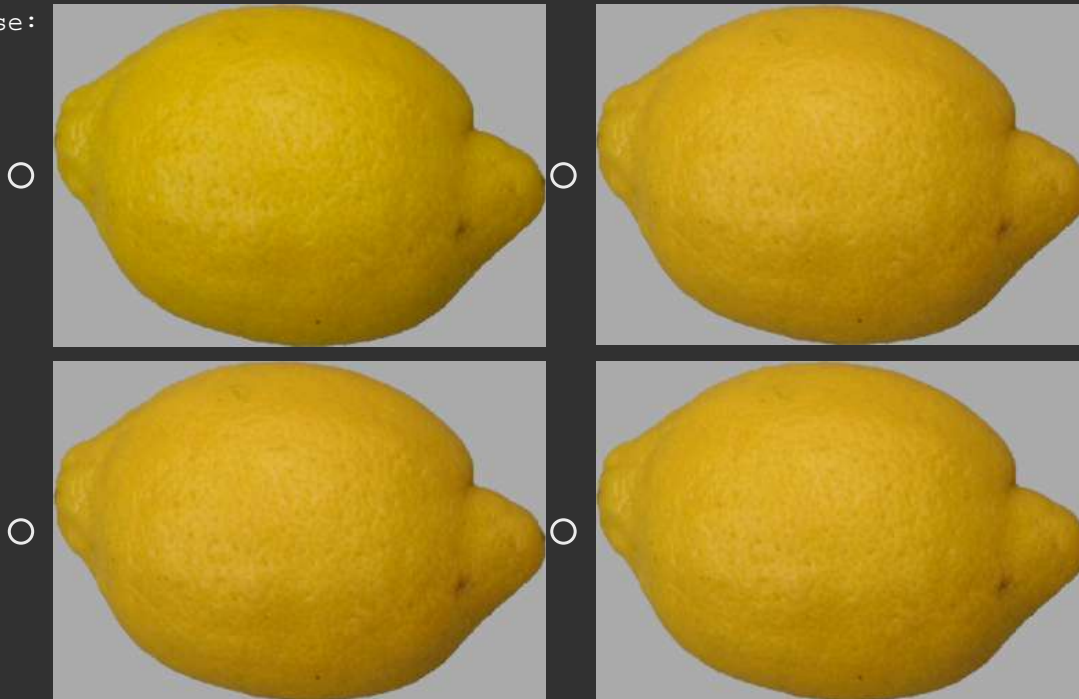


Correct Response:
Bottom Left

Lemon Rotated Plus

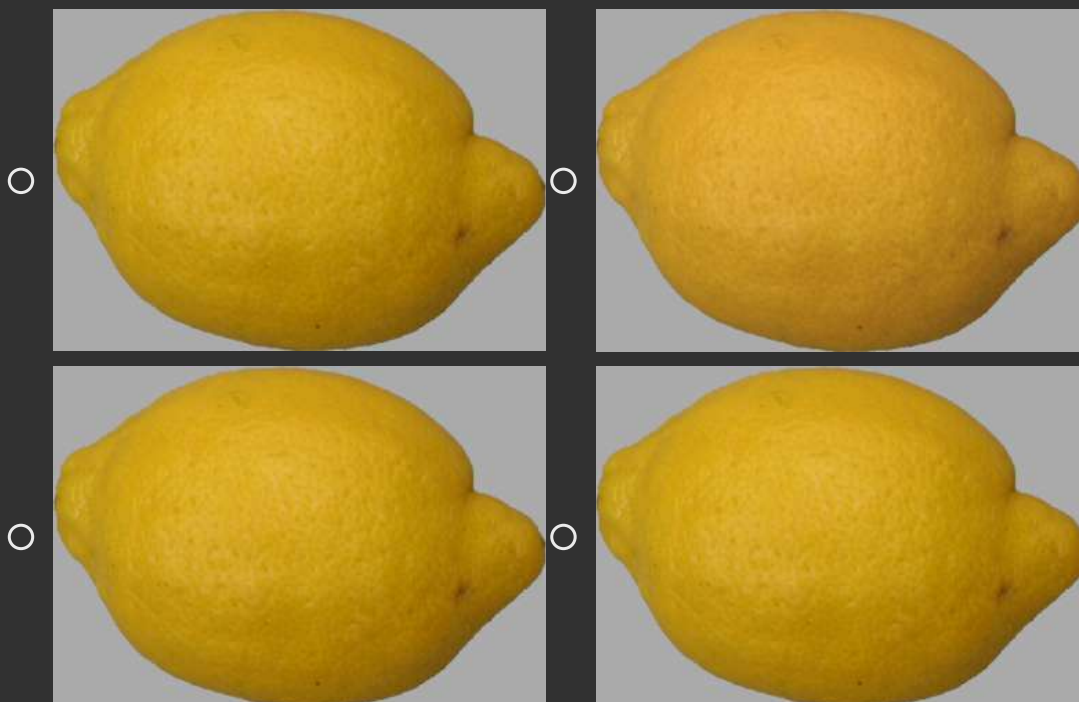
Please select the image that you believe is different from the others

Correct Response:
Top Left



Lemon Rotated Minus

Please select the image that you believe is different from the others



Correct Response:
Top Right

Frog One Hue

Please select the image that you believe is different from the others

Correct Response:
Top Left



Frog Rotated Plus

Please select the image that you believe is different from the others

Correct Response:
Top Left



Frog Rotated Minus

Please select the image that you believe is different from the others



Correct Response:
Top Right



Grapes One Hue

Please select the image that you believe is different from the others

Correct Response:
Top Left



Grapes Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Grapes Rotated Minus

Please select the image that you believe is different from the others

Correct Response:
Top Left



Please select the image that you believe is different from the others



Correct Response:
Top Right

Lettuce Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Bottom Left

Lettuce Rotated Minus

Please select the image that you believe is different from the others



Correct Response:
Bottom Right

Courgette One Hue

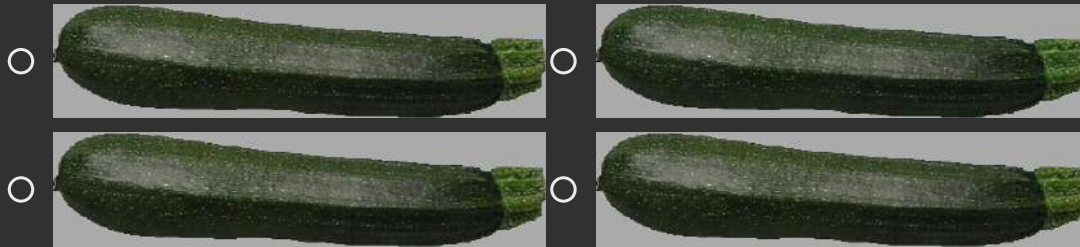
Please select the image that you believe is different from the others



Bottom Left:
Correct Response

Courgette Rotated Plus

Please select the image that you believe is different from the others



Correct Response:
Top Right

Courgette Rotated Minus

Please select the image that you believe is different from the others

Correct Response:
Top Left

