The art of Discontinuities

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What is a Discontinuity?

→ THE PROPERTY OF NOT BEING MATHEMATICALLY CONTINUOUS, IS A POINT IN WHICH AN OBJECT IS.

→ DISCONTINUITY IS WHEN A GRAPH HAS A BREAK OR JUMP, FOR EXAMPLE THERE IS A DISCONTINUITY WHEN YOU HAVE TO PICK UP THE PENCIL FOR DRAWING THE FUNCTION.

Types of Discontinuities:

➤ Jump discontinuities.
➤ Infinite discontinuities.
➤ Removable discontinuities.
➤ Endpoint discontinuities.
➤ Mixed discontinuities.

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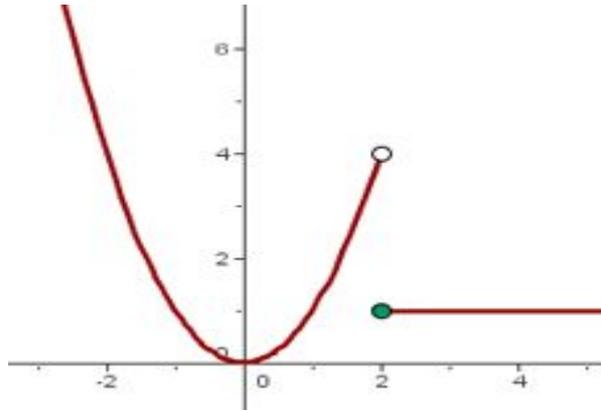
1.

JUMP DISCONTINUITY
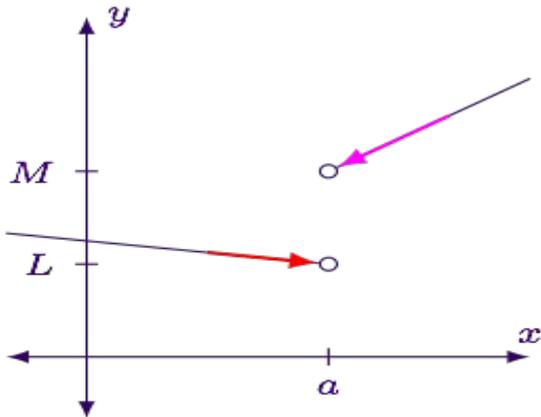
IS WHEN THERE ARE TWO POINTS AND BETWEEN THEM THERE IS A GAP. WHEN THIS HAPPENS WE CAN SAY THAT IT HAS A JUMP DISCONTINUITY WHEN X = A.
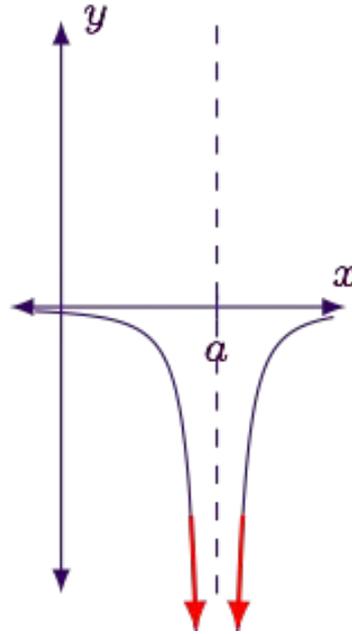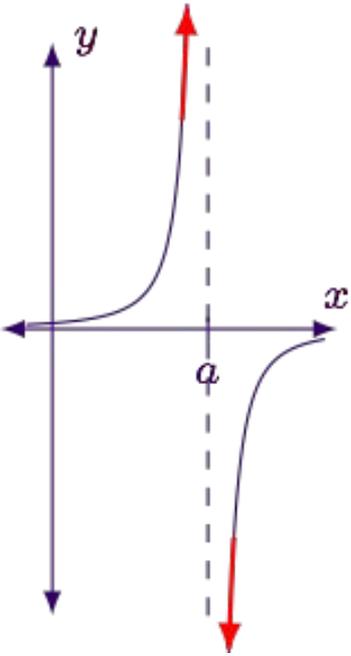
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INFINITE DISCONTINUITY

IS WHEN THE ARROWS ARE INDICATING THAT IT WILL GROW INFINITELY WHEN X APPROACHES A. THE LIMIT DOESN'T EXISTING.
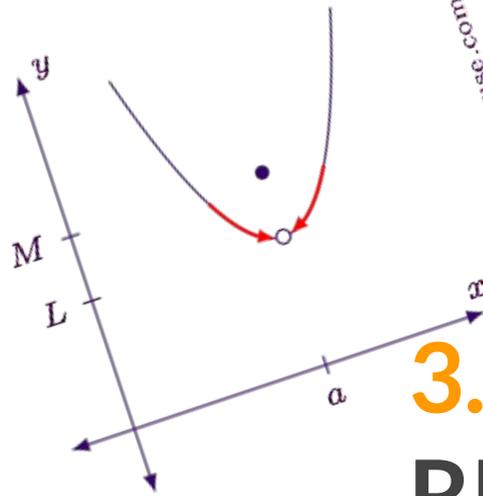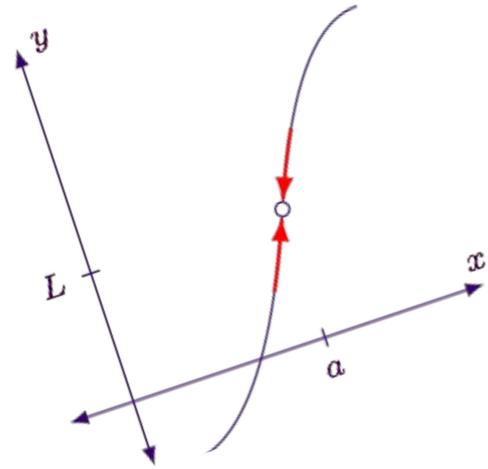
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REMOVABLE DISCONTINUITY

When there are holes in the graph, they are called removable discontinuities.
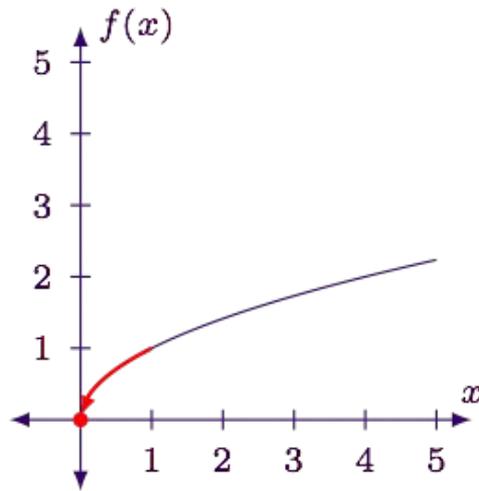
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ENDPOINT DISCONTINUITY

When the function is defined on an interval with closed point, the limit couldn't exist because when the limit has to be analyzed from both sides it wouldn't exist.
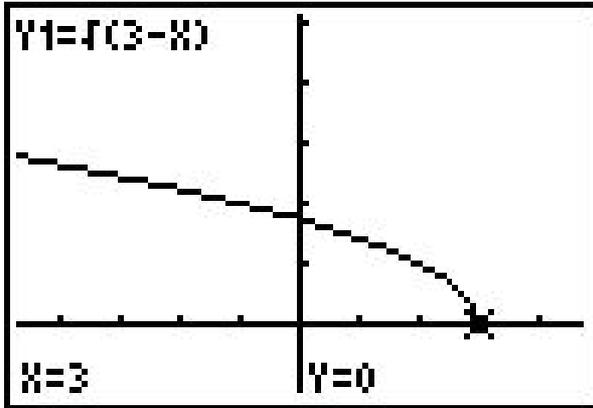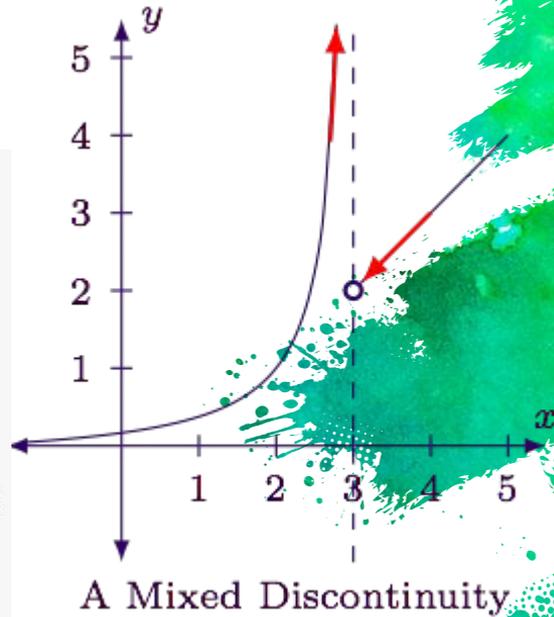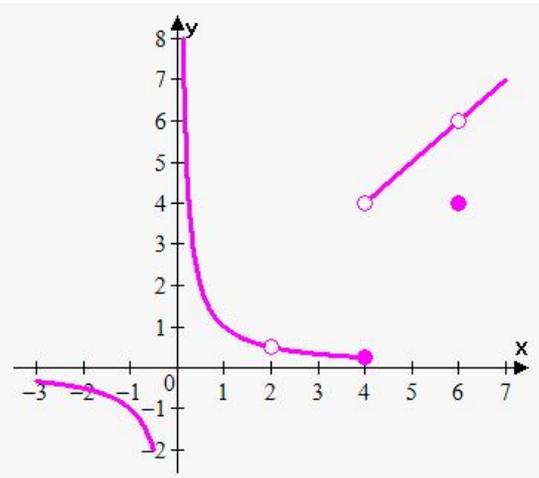
A Mixed Discontinuity

When the function has an infinite discontinuity,and a removable discontinuity, or some other combination of the other types of them, we can say that the graph has a mixed discontinuity.

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REFERENCES

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