1C Exercises

# Continuity and the Intermediate Value Theorem

In Exercises 1–6, use the graph to determine the limit, and discuss the continuity of the function.

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| In Exercises 7–26, find the limit (if it exists). If it does not exist, explain why. | | | |
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| In Exercises 27–30, discuss the continuity of each function. | |
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| In Exercises 31–34, discuss the continuity of the function on the closed interval. | |
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| In Exercises 35– 60, find the -values (if any) at which is not continuous. Which of the discontinuities are removable? | |
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| **Find the value of and that make the function continuous.** | |
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| Writing In Exercises 83–86, explain why the function has a zero in the given interval. | |
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| In Exercises 91–94, verify that the Intermediate Value Theorem applies to the indicated interval and find the value of guaranteed by the theorem. | |
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| **Challenge Problems** (Optional) |  |
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