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Since $log = log_{10}$ is a one-to-one function, with inverse 10^x, we can "undo" the log on each side by raising 10 to that power.

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But $-2 - 3 < 0$ so $log(x-3)$ is not defined, and $x = -2$ is not a solution.

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Conclusion: The solution to $log(2x+2) + log(x-3) = 1$ is: $x = 4$