Concept test 2.1: Saddle-node bifurc's

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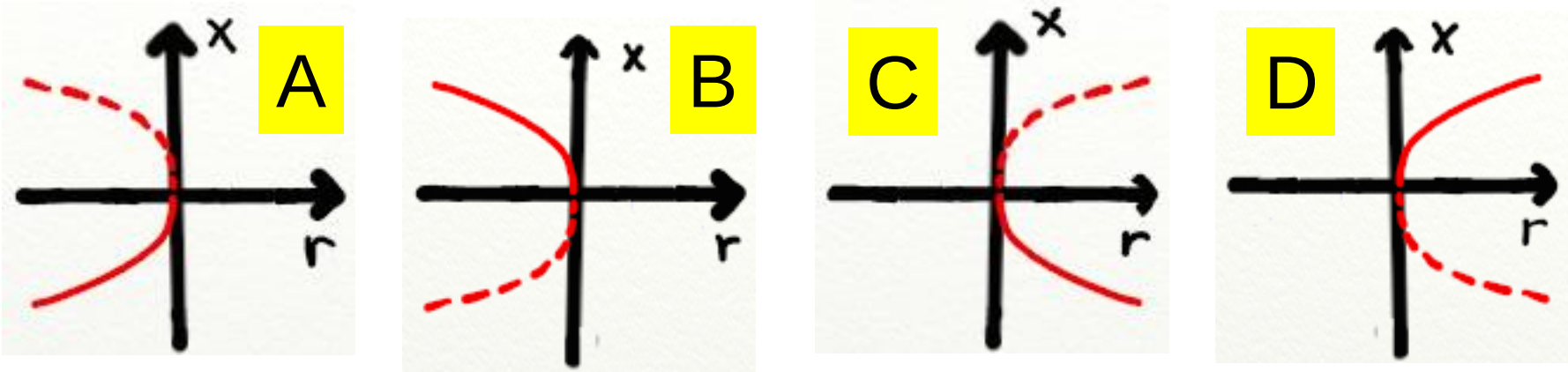
Consider the bifurcation diagrams below (the normal form is A):



1. Which diagram corresponds to the system $\dot{x} = -r + x^2$?

2. Which diagram corresponds to the system $\dot{x} = -r - x^2$?

3. Which are the necessary conditions on f to have a saddle-node bifurcation at $x = x^*$?