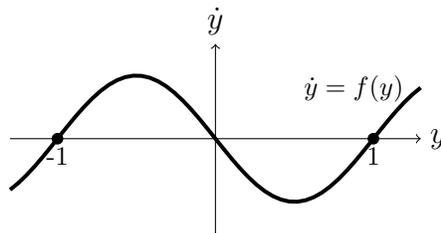


Stability

Quiz: Stability.

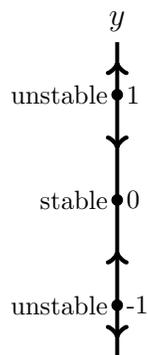
In the autonomous equation $\dot{y} = f(y)$, where $f(y)$ has the graph shown, describe the rightmost critical point.



Choices:

- a) stable
- b) unstable
- c) semistable
- c) can't tell, could be any of them

Answer: Unstable. This is evident from the phase line.



The phase line shows that the critical point at $y = 1$ is unstable.

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18.03SC Differential Equations
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