Section 2.1 (Continued) Example: $\frac{dy}{dx} = y^2 - y^3$ dependent variable autonomous differential equation $O = y^2 - y^3 = y(l-y)$ Y=0, Y=1 Y(x)=0 Y(x)=1 y=0 and y=1Phase Portrait are equilibrium y is decreasing (constant) solution

y=1

Y is increasing

since dy is positive

y=0

Y is increasing since dy is positive Typical Solution Curve asymptotically stuble (ntical



