$$x_{n+1}$$

Figure 1: Setting up the cobweb diagram for $x_{n+1} = 2x_n$.
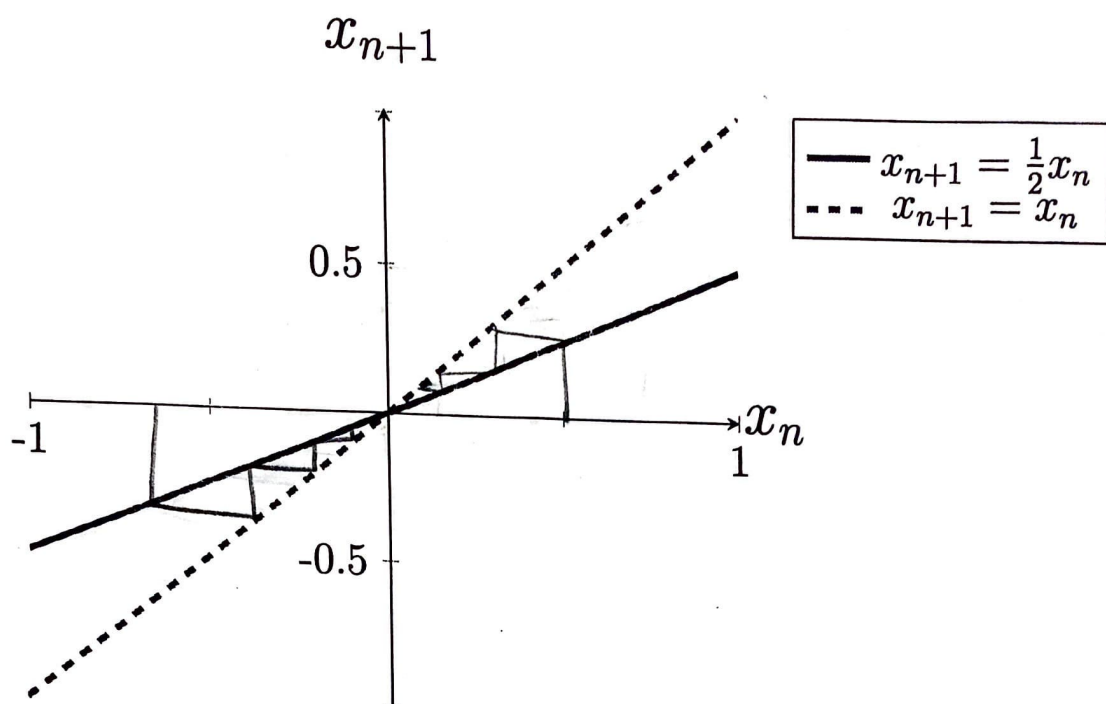
Example 3.8. unstable

Figure 2: Setting up the cobweb diagram for $x_{n+1} = \frac{1}{2}x_n$.

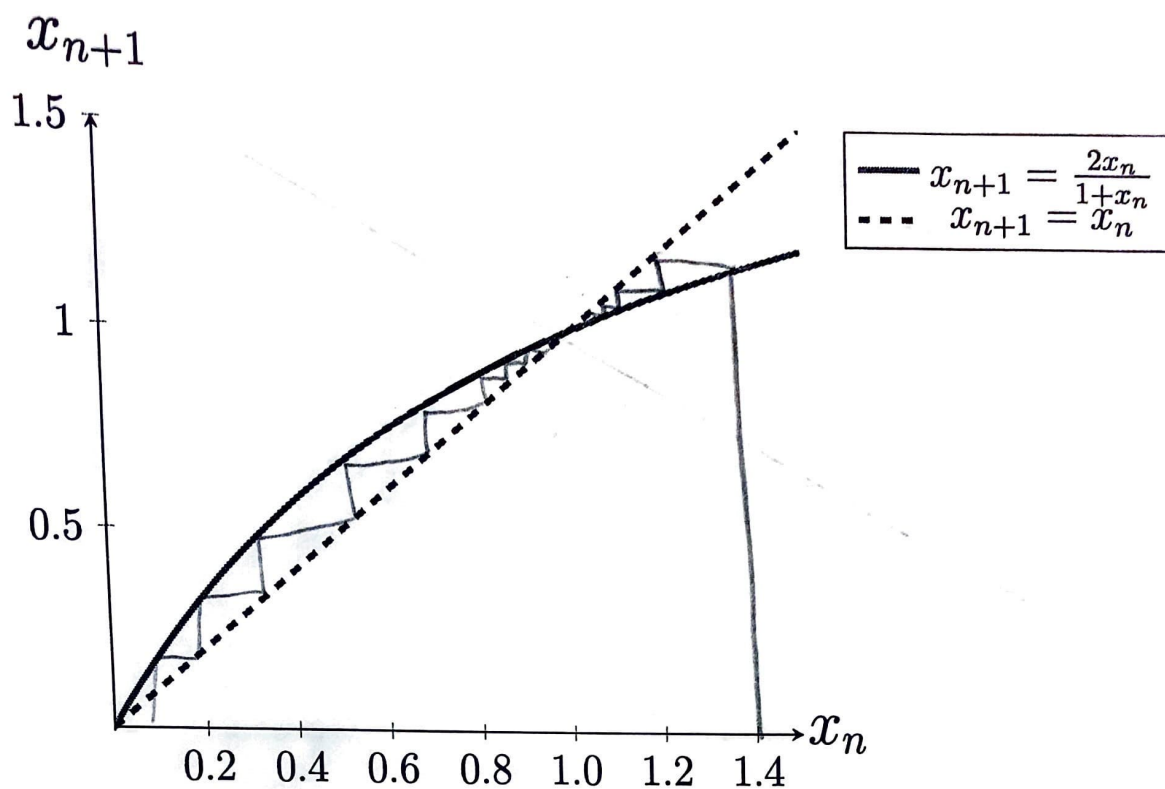**Example 3.9.**   asymptote Stable

Figure 3: Setting up the cobweb diagram for the Beverton-Holt equation $x_{n+1} = \frac{2x_n}{1+x_n}$.
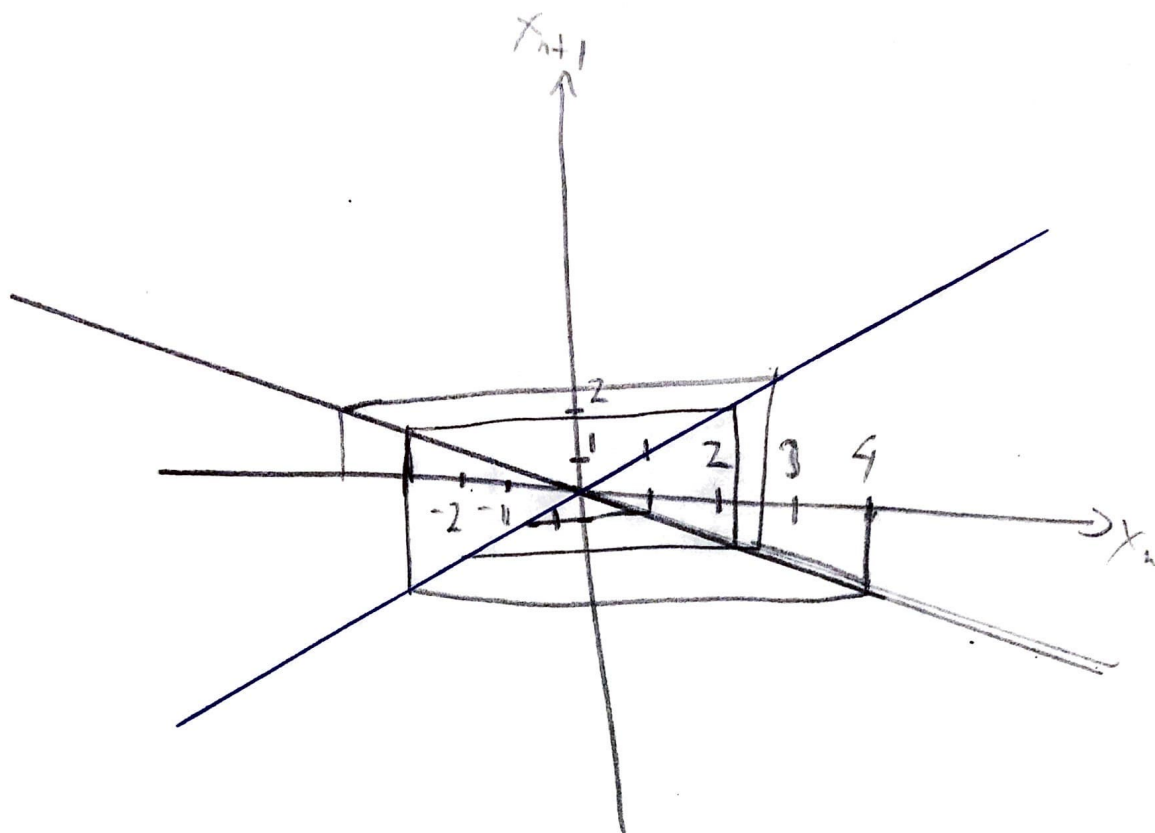
Example 3.10.

Attraction

⎣→ Lyapunov stable

∞ Asymptote Stable

$x_n = 0, 1$ → Carrying capacity

Lyapunov Stable