1.28. Determine which of the properties listed in Problem 1.27 hold and which do not hold for each of the following discrete-time systems. Justify your answers. In each example, $y[n]$ denotes the system output and $x[n]$ is the system input.

(a) $y[n] = x[-n]
(b) y[n] = x[n - 2] - 2x[n - 8]
(c) y[n] = nx[n]
(d) y[n] = 8\delta(x[n - 1])
(e) $y[n] = \begin{cases} x[n], & n \geq 1 \\ 0, & n = 0 \end{cases}$

(f) $y[n] = \begin{cases} x[n], & n \geq 1 \\ 0, & n = 0 \\ x[n + 1], & n \leq -1 \end{cases}$

(g) $y[n] = x[4n + 1]$

(1) Memoryless
(2) Time invariant
(3) Linear
(4) Causal
(5) Stable