(a) Converges
$$\left(\text{since } \frac{1}{2} < 1\right)$$

(b) Converges (since
$$0 < 1$$
)

(c) Diverges
$$\left(\text{since } \frac{3}{2} > 1\right)$$

(d) Converges
$$\left(\text{since } \frac{2}{3} < 1\right)$$

(e) Diverges (since
$$\infty > 1$$
)

(f) Converges (since
$$0 < 1$$
)