

1) $\frac{q}{p} = 9$ 2) $\frac{q}{p} = 9$ 3) $\frac{r_{n+5}}{q_{n+1}} = 3$ 4) $q_n \rightarrow 0^+ \rightarrow \frac{r_{n+5}}{[q_n^2]} [q_n^2] = 0$ $q_n \rightarrow 0^- \rightarrow \frac{r_{n+5}}{[q_n^2]} = [q_n^2] = 0$	1
1) $f_{n-2} = 2$ 2) $[f_{n-2} - 1] = [1] = 1$ 3) $[f_{n-2} - 1] = [1] = 1$ 4) $[f_{n-2} - 1] = [1] = 1$	2
1) $\lim_{n \rightarrow \infty} \frac{r_{n+1}}{r} = \frac{1}{r}$ 2) $\lim_{n \rightarrow \infty} \left[\frac{r_{n+1}}{r} \right] = \left[\frac{1}{r} \right] = \frac{1}{r}$ 3) $\lim_{n \rightarrow \infty} \left[\frac{r_{n+1}}{r} \right] = \left[\frac{1}{r} \right] = \frac{1}{r}$ 4) $\lim_{n \rightarrow \infty} \left[\frac{r_{n+1}}{r} \right] = \frac{1}{r}$	3
1) $\lim_{n \rightarrow \infty} \frac{q_n - 5}{r^2 - q_{n+5}} = \frac{-5}{0^+} = -\infty$ 2) $\lim_{n \rightarrow \infty} \frac{q_n - 5}{r^2 - q_{n+5}} = \frac{-5}{0^-} = +\infty$ 3) $\lim_{n \rightarrow \infty} \frac{q_n - 5}{(q_n - r)^2} = \frac{q_n - 5}{0^+} = \frac{-5}{0^+} = -\infty$ 4) $\lim_{n \rightarrow \infty} \frac{q_n - 5}{(q_n - r)^2} = \frac{q_n - 5}{0^-} = \frac{-5}{0^-} = +\infty$	4
1) $q_n \rightarrow 3^- \rightarrow [q_n] = [-15] = 1 - (-15) = 14$ 2) $q_n \rightarrow 3^+ \rightarrow [q_n] = [-15] = 9 - (-14) = 23$ 3) $q_n \rightarrow \frac{1}{r}^- \rightarrow \frac{-1}{(\frac{1}{r})^2} = \frac{-1}{\frac{1}{r^2}} = -r^2$	5

