$(q-4) (q-2)^2$ $(q-4) (q-3)^2$ (q-4) (q-1) q(q-4) (q-2) (q+3)Solution

Apply Long Division.

(q-4) (q-1) q

1. $q^3 - 5q^2 + 4q$ has a factor (q-0) compute all other factors: