

4.

Which of the following is the remainder of  $q^3 - q^2 - 3q$  divided by  $q - 2$

$$\begin{array}{r}
 \phantom{q-2} + (\boxed{q^2}) \phantom{+ (-1)q^2} + (\boxed{q}) \phantom{+ (-3)q} + (\boxed{-1}) \\
 \hline
 \boxed{q-2} \phantom{+ (-1)q^2} + (1)q^3 + (-1)q^2 + (-3)q \\
 \phantom{+ (-1)q^2} + (\boxed{q^3}) + (\boxed{-2q^2}) \\
 \phantom{+ (-1)q^2} + (1)q^2 + (-3)q \\
 \phantom{+ (-1)q^2} + (\boxed{q^2}) + (\boxed{-2q}) \\
 \phantom{+ (-1)q^2} + (-1)q \\
 \phantom{+ (-1)q^2} + (\boxed{-q}) + (\boxed{2}) \\
 \phantom{+ (-1)q^2} + (\boxed{-2})
 \end{array}$$