

3.

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

$$\begin{array}{r}
 + (\boxed{k^2}) + (\boxed{2}) \\
 \hline
 \boxed{k+2} (1)k^3 + (1)k^2 \\
 (\textcircled{k^3}) + (\textcircled{2k^2}) \\
 + (-1)k^2 \\
 + (\textcircled{-k^2}) + (\textcircled{-2k}) \\
 + (2)k + (-2) \\
 + (\textcircled{2k}) + (\textcircled{4}) \\
 + (\boxed{-6})
 \end{array}$$