$oldsymbol{5}$. Which of the following is the remainder of $-3~m^3$ $-3~m^2$ + 2 m - 2 divided by m + 1

$$+(-3 m^{2})$$
 $+(2)$ $m+1$ (-3) m^{3} $+(-3)$ m^{2} $+(2)$ m $+(-2)$

$$(-3 \text{ m}^3)$$
 + (-3 m^2) + $(2) \text{ m}$ + (-2)