

1.

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

$$\begin{array}{r}
 \phantom{w-3} + (-w^2) + (-5w) + (-17) \\
 \hline
 w-3 \quad (-1)w^3 + (-2)w^2 + (-2)w + (3) \\
 \phantom{w-3} (-w^3) + (3w^2) \\
 \phantom{w-3} + (-5)w^2 + (-2)w + (3) \\
 \phantom{w-3} + (-5w^2) + (15w) \\
 \phantom{w-3} + (-17)w + (3) \\
 \phantom{w-3} + (-17w) + (51) \\
 \phantom{w-3} + (-48)
 \end{array}$$