3.

Which of the following is the quotient of $z^3 - z^2 + z$ divided by $z + 3$

$$
\begin{array}{r}
+(z^2) \qquad +(-4z) \qquad +(13) \\
\hline
z+3 \,\big)\, (1)z^3 \;+(-1)z^2 \quad +(1)z \\
(z^3) \;+(3z^2) \\
+(-4)z^2 \quad +(1)z \\
+(-4z^2) \;+(-12z) \\
+(13)z \\
+(13z) \qquad +(39) \\
+(-39)
\end{array}
$$