



- MX 6** Let $P(x) = qx^3 + rx^2 + rx + q$ where q and r are constants, $q \neq 0$. **1**
SP One of the zeros of $P(x)$ is -1 .
- 19 7** Given that α is a zero of $P(x)$, $\alpha \neq -1$, which of the following is also a zero?
MX 1 A. $-\frac{1}{\alpha}$ B. $-\frac{q}{\alpha}$ C. $\frac{1}{\alpha}$ D. $\frac{q}{\alpha}$

C

Let the roots be -1 , α and β .

$$\text{Product of roots: } -1(\alpha)(\beta) = -\frac{q}{q}$$

$$-1\alpha\beta = -1$$

$$\beta = \frac{1}{\alpha}$$

The third root is $\frac{1}{\alpha}$.

State Mean:
0.51/1

* These solutions have been provided by [projectmaths](http://projectmaths.com.au) and are not supplied or endorsed by NESA.

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