

3.

Solution

To find the z -intercept, we set d equal to 0, so :

$$d(z) = z^2 - 4z - 12 = (-6 + z)(2 + z) = 0$$

$$-6 + z = 0 \text{ or } 2 + z = 0$$

$$z = 6 \text{ or } z = -2$$

So, the z -intercepts are at the points $(6, 0)$ and $(-2, 0)$