6.

Solution

To find the b-intercept, we set q equal to 0, so :

$q(b) = b^2 - 3b + 2 = (-2 + b)(-1 + b) = 0$

$-1 + b = 0$ or $-2 + b = 0$

$b = 1$ or $b = 2$

So, the b-intercepts are at the points $(1,0)$ and $(2,0)$