Solution

To find the s-intercept, we set ${\sf k}$ equal to 0, so :

 $k(s) = s^2 - 2s - 8 = (-4 + s)(2 + s) = 0$

-4 + s = 0 or 2 + s = 0

s = 4 or s = -2

So, the s-intercepts are at the points (4,0) and (-2,0)