Which of the following is the quotient of $-3\,k^3+2\,k^2+k+2$ divided by k

 $-3 k^3$

 $k (-3) k^3 + (2) k^2 + (1) k + (2)$

 $+(2)k^{2} + (1)k + (2)$

+(1)k + (2)