18. *Proof*: Consider any two consecutive integers. Call the smaller one n. By the parity theorem, either n is even or n is odd.

Case 1 (n is even): In this case $n = 2k$ for some integer k. Then $n(n+1) = 2k(2k+1) = 2[k(2k+1)]$. But $k(2k+1)$ is an integer (because it is a product of sums of integers), and so $n(n+1)$ is even.

Case 2 (n is odd): In this case $n = 2k+1$ for some integer k. Then

$$n(n+1) = (2k+1)[(2k+1)+1] = (2k+1)(2k+2) = 2[(2k+1)(k+1)].$$

But $(2k+1)(k+1)$ is an integer (because it is a product of sums of integers), and so $n(n+1)$ is even.

Hence in either case the product $n(n+1)$ is even *[as was to be shown]*.