e) We can prove this via the contrapositive, this means if $(\neg B) \Rightarrow (\neg A)$ is true then $A \Rightarrow B$ is true.

$\therefore$ the statement becomes: if n is not odd then $n^3 - n + 7$ is not odd

where can further be simplified to: if n is even then $n^3 - n + 7$ is even

We assume n is even ($2k$ for some integer k)

$n^3 - n + 7$

$\Rightarrow (2k)^3 - 2k + 7$ ← sub $2k$ in for n

$\Rightarrow 8k^3 - 2k + 7$

$\Rightarrow 2a - 2k + 7$ ← sub 'a' in for $4k^3$ (an integer)

$\Rightarrow 2(a - k + 3) + 1$

$\Rightarrow 2c + 1$ ← let c be $a - k + 3$ (an integer)

$\therefore$ the contrapositive is false so the original statement is false