

Q -4.3 .

There is a point n_0 where A and B cross at that point and from there on, B is always bigger than A.

To find n_0 :

$$A = B$$

$$40n^2 = 2n^3$$

$$\cancel{20n} \quad 20 = n$$

At $n_0 = 20$, $A = B$ therefore at $n_0 = 21$, A will be better than B