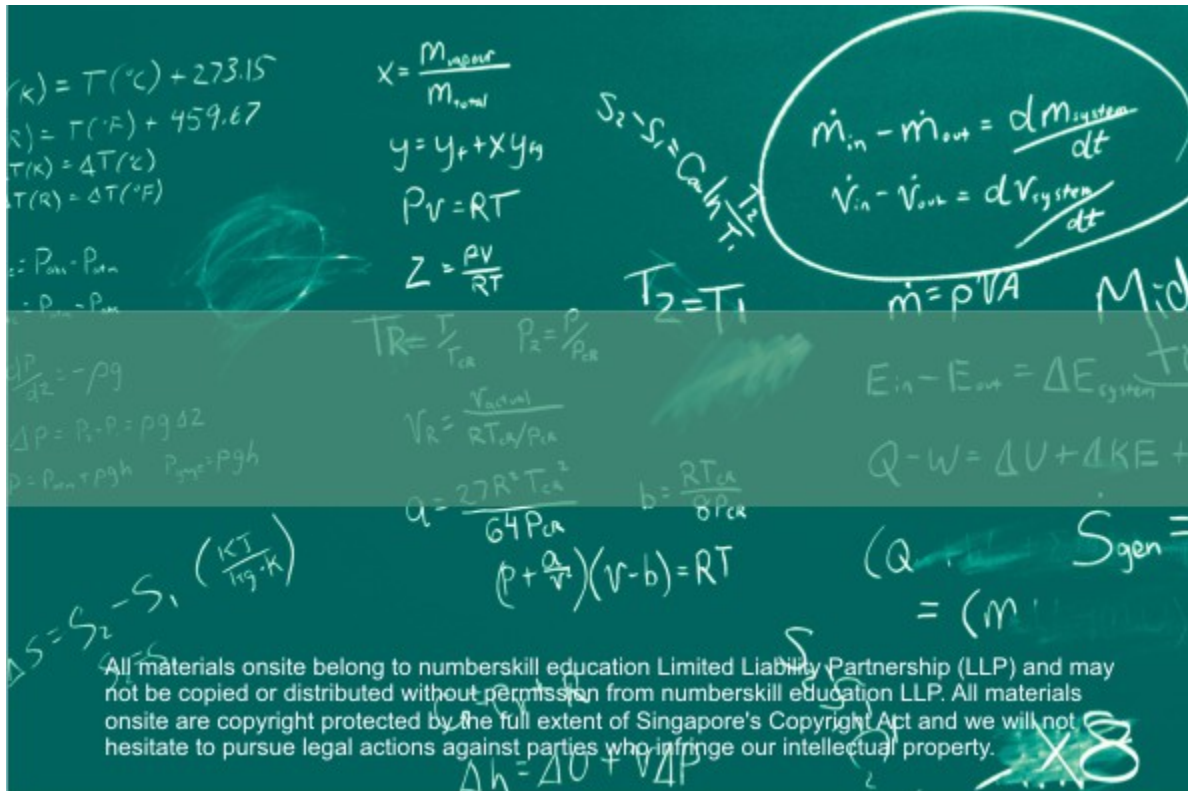


Challenging question on binomial series that students always ask during H2 math tuition



Questions on binomial series expansion in JC H2 math are generally simple. Students don't even need to memorize the expansion formula since it is given in the formula list (MF15). The most common problems students face in this chapter are those questions with those pesky "hence parts". The expansion itself is easy for most students but sometimes, it takes a while to figure out the link between the expansion and the "hence parts".

But the worst kind of questions for binomial series expansion must be those questions asking for the x^r term! If you're not from AJC, you may not even have seen such a question! An example of such question is from the actual A levels examination paper in N94/1/15 (below).

Find, in the simplest form, the coefficient of x^r in the expansion, in ascending powers of x , of $\frac{1}{\left(1-x\right)^3}$.

Many students find this kind of questions difficult. It is quite true, especially for students who were not exposed to the $\binom{n}{r}$ formula. This video shows how such questions are typically solved. Watch the video on YouTube here.

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