Conversation

🧑‍🎓 I don't understand the problem. Can you explain what it's asking?

👨‍🏫 The problem is asking us to find the number of numbers between 20000 and 30000 that can be formed using the digits 2, 3, 5, 6, and 7. Each digit can be repeated any number of times.

🧑‍🎓 Okay, got it. So, why is the first place limited to only 2?

👨‍🏫 That's because the numbers are greater than 20000 and less than 30000. *If the first digit were 1, the number would be less than 20000, and if it were 3, the number would be greater than 30000. So, the first place can only be 2.*

🧑‍🎓 I see. What about the remaining places? Can they be occupied by any of the given digits?

👨‍🏫 Yes, that's correct. The remaining 4 places can be occupied by any of the 5 digits: 2, 3, 5, 6, and 7.

🧑‍🎓 Okay, so how do we find the total number of numbers that can be formed?

👨‍🏫 Since each of the remaining 4 places can be occupied by any of the 5 digits, we have 5 options for each place. To find the total number of numbers, we raise 5 to the power of 4, which is $5^4 = 625$.

Raw Text

How many numbers are there between 20000 and 30000 in which the digits are 2,3,5,6,7 and each digit can be repeated any number of times. Since the numbers are > 20000 and < 30000 1st place can be only 2. Remaining 4 places can be occupied by any of the 5 digits. Therefore, Required no. of numbers = 5^4=625

LLM

Continuous Pretraining

Language Model ✨✨

■ OWM-4B ■ OWM-14B ■ MIND-OWM-4B [All Conversations]

Boost in Math Reasoning!

Accuracy (%)

	MATH	GSM8K	MMLU-STEM	MMLU	General Reasoning
MIND-OWM-4B	7.22	26.38	42.53	50.21	55.41