

What is MATH 204?

MATH 204 is a 200-level college level class designed for students pursuing Education. (Note that most programs which require MATH 204 [mostly about Arithmetic] also require MATH 205 [mostly about Geometry]. These classes may be taken in either order.) Much of the material in the course is familiar, but the level of understanding required is probably more rigorous than what you have encountered. Students with weak reading skills should consider taking an appropriate ENG course before or possibly simultaneous with this course.

What's the difference between MATH 204 and 204S?

MATH 204 (without the "S") is the main college level class. The "S" denotes supplement. Any section with the "S" is a supplemental class. Student can enroll in only MATH 204. Students cannot enroll in only MATH 204S. All supplement sections must be taken concurrently with the main college level course.

There are only two options: either MATH 204 or MATH 204 with MATH 204S.

What is a supplemental class?

A supplemental math course is designed to provide support to students who are apprehensive about, unsure of, or uncomfortable with their math skills. Supplemental course sections offer additional hours per week of course specific practice. If you like the idea of extra practice, guidance, and feedback on course materials; or if you want to create more time & space for math practice, consider enrolling.

I need MATH 204. Should I also enroll in MATH 204S?

So, you've learned that you need or want to take MATH 204. This is a brief assessment to help you decide if you should also take the supplement class, MATH 204S, concurrently with your MATH 204 class. It's also a good idea to talk with an advisor before making your decision.

- If you feel confident that you could correctly address 4 or more of these exercises, then enroll in only MATH 204.
- If you feel less confident or think that you could only address 2 or 3 exercises, then enroll in MATH 204 and MATH 204S.
- If you feel more worried or think that you could address fewer than 2 exercises, then you should consider enrolling in a preliminary class such as MATH 101 (or MATH 101 and MATH 101S).

1. How many terms are in each sequence?
 - a. 13, 14, 15, 16, ..., 25
 - b. 10, 15, 20, 25, ..., 100
 - c. 3, 6, 12, 24, 48, ..., 3072

2. In a class of 30 students, 13 wore red shirts, 18 wore blue pants, and 7 wore red shirts and blue pants. How many students wore neither red shirts nor blue pants?
3. Carl Friedrich Gauss found the sum $1 + 2 + 3 + \dots + 99 + 100$ by adding this sum to itself, but reversed. So, he reasoned that

$$\begin{array}{r} \text{SUM} = 1 + 2 + 3 + \dots + 99 + 100 \\ \text{and } \text{SUM} = 100 + 99 + 98 + \dots + 2 + 1 \\ \text{so that } 2 * \text{SUM} = 101 + 101 + 101 + \dots + 101 + 101 \end{array}$$

which meant that twice his sum was $101 * 100$ and that his original sum was 5050. Use Gauss' technique to find the sum $1 + 2 + 3 + \dots + 199 + 200$.

4. Can you explain why every integer is considered a rational number?
5. The Mayans used a dot (\cdot) to represent 1 and a bar ($-$) to represent 5. What number is represented below?

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6. In the base five system, 412_{five} indicates two units, one five, and four squares of five, so $412_{\text{five}} = 4 * 5^2 + 1 * 5 + 2 = 107$. Find the sum $123_{\text{five}} + 42_{\text{five}}$.
7. A student was subtracting and wrote the following. Could you correctly find the difference? Could you convince this student that a mistake has been made? What mistake did the student make? How would you help this student avoid this error in the future?

$$\begin{array}{r} 527 \\ - 183 \\ \hline 443 \end{array}$$