MAT 141 Exam 1 Corrections

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1 Question 3

With the original statement being $p \wedge (\sim r \vee q)$, the negation of the statement (using DeMorgan's law) would be $\sim p \vee (r \wedge \sim q)$. Originally, I wrote q rather than $\sim q$.

2 Question 4

Given the statement "if you are making lasagna, then you need ricotta," we need to write the converse, inverse, contrapositive, and negation of it.

- **Converse:** If you need ricotta, then you are making lasagna.

- **Inverse:** If you don't need ricotta, then you aren't making lasagna.

- **Contrapositive:** If you don't need ricotta, then you aren't making lasagna.

- **Negation:** You are making lasagna, but you don't need ricotta.

In my original answer, I flipped the converse and inverse statements.

3 Question 6

Once again, I flipped the converse and inverse, resulting in the wrong answer again. I've omitted the modus ponens and modus tollens parts of the question, since I got them correct.

- **Converse Error:** If I watch TikTok, then I won't finish my work. I won't finish my work. Therefore, I watch TikTok.

- **Inverse Error:** If I watch TikTok, then I won't finish my work. I don't watch TikTok. Therefore, I will finish my work.

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