

Unit 6.2 – Remainder & Factor Theorem I Can Sheet

I Can...

- Explain the differences between direct & synthetic substitution
- Explain the remainder theorem & how it is helpful (and the method of solving)
- In my own words, explain the factor theorem
- Use synthetic division to determine if an equation $(x-r)$ is a factor, and then calculate the remaining factors.

Items in bold should be turned in to me or placed in your binder.

_____ **video notes**

_____ **book assignment**

_____ extra video

_____ extra ws

_____ pre-mc

_____ **mastery check**

Pre-mc:

Use synthetic substitution to find $f(-3)$ and $f(4)$ for each function.

1. What is the difference between direct & synthetic substitution?
2. $4x^4 - 4x^3 + 3x^2 - 2x - 3$

Given the polynomial and one of its factors, find the remaining factors.

3. $x^4 + x^3 - 11x^2 - 9x + 18; x - 1$
4. $x^3 - 4x^2 - 11x + 30; x + 3$