

Topic: Polynomials**Remainder Theorem**

4	In addition a 3.0, demonstrate in-depth inferences & applications that go beyond the learning goal.
3	<input type="checkbox"/> Solve quadratic equations in one variable by factoring <input type="checkbox"/> Determine if a given binomial is a factor of a polynomial; if so, completely factor the polynomial
2	<input type="checkbox"/> Recognize or recall specific vocabulary such as: monic, roots, end behavior <input type="checkbox"/> Factoring – showing expressions in different representations <ul style="list-style-type: none"> ▪ Non-monic ▪ Factor by grouping <input type="checkbox"/> Find the remainder using <ul style="list-style-type: none"> ▪ The Remainder Theorem ▪ Divide polynomials
1	Student performance reflects insufficient progress towards foundational skills and knowledge.

Determine if the given binomial is a factor of the given polynomial. Show your work. (Choose 4 problems to complete. Do the rest for more practice).

1. $(x^3 - x^2 - x - 2) \div (x - 2)$

5. $(x^4 - 8x^3 + 10x^2 + 2x + 4) \div (x - 2)$

2. $(x^4 - 8x^3 - x^2 + 62x - 34) \div (x - 7)$

6. $(x^4 - 25x^3 - 7x^2 - 37x - 18) \div (x + 5)$

3. $(x^4 + 9x^3 + 14x^2 + 50x + 9) \div (x + 8)$

7. $(x^5 + 6x^4 - 3x^2 - 22x - 29) \div (x + 6)$

4. $(x^4 + 6x^3 + 11x^2 + 29x - 13) \div (x + 5)$

8. $(x^4 + 10x^3 + 21x^2 + 6x - 8) \div (x + 2)$