Yours truly, Mrs. Fuston, survived math using flashcards. I would write the question on the front of the flashcard and the work/answer on the back. As the unit progressed, I'd add new cards to the set. Every few days before a quiz or test, I would shuffle the cards to review. If I had to peek at the back of the card AT ALL to finish it successfully, I didn't know it well enough for the test. I'd put that card on the bottom of the pile. Questions I could answer correctly without peeking would be set off to the side. I would practice until I got through all of the cards without needing hints. Again, I would do that several times before the test. It worked!! ☺

Here are 10 questions that represent the content of this unit …

1. Graph $f(x) = (x+1)^2(x+4)(x-1)$.
   a) Degree: _____   # of turning points: _____   leading coefficient: _____
   b) Describe the end behavior.
   c) Name each zero and describe it's multiplicity.

2. Graph $f(x) = -(x-2)^2(x+2)$.
   a) Degree: _____   # of turning points: _____   leading coefficient: _____
   b) Describe the end behavior.
   c) Name each zero and describe it's multiplicity.

3. Sketch a polynomial function of degree 4, with a negative leading coefficient, that has two distinct real zeros and two complex zeros and a positive y-intercept.

4. Factor $f(x) = 2x^3 + 9x^2 + 10x + 3$ given that $f(-1) = 0$.

5. Find ALL the zeros of $f(x) = 2x^4 - x^3 - 28x^2 + 9x + 90$ given that $f(-2) = 0$ and $f(5/2) = 0$.

6. Find ALL the zeros of $f(x) = x^3 + 9x^2 + 21x + 18$ given that $(x+6)$.

7. Find ALL the zeros of $f(x) = x^4 - 8x^3 + 9x^2 + 56x - 112$.

8. Find ALL the zeros of $f(x) = 2x^3 - x^2 + 2x - 1$.

9. Given: $f(2) = 16$, $f(1) = 0$, $f(0) = -36$, $f(3) = 0$, $f(-1) = -32$, and $f(-2) = 0$
   a) Name the y-intercept.
   b) Name the factors.
   c) Name the zeros.
   d) Name one ordered pair that is not on an axis.

10. Write a polynomial function of least degree, a leading coefficient of 1, and the zeros $-1, \sqrt{2}, -\sqrt{2}$.