SECONDARY MATH 3

**CORE STANDARDS**

A.APR.2

LESSON

**1-2**

OBJECTIVE **1.** I can apply the Remainder Theorem to determine the factors of a polynomial.

NOTES **Remainder Theorem:** For a polynomial and a number a, the remainder when dividing by is , so if and only if is a factor of .

In other words if we plug the number into the polynomial and get zero when simplified, then is a factor of the polynomial.

**Factoring review:** In order to factor a quadratic, , when we select 2 numbers and , such that and . So the factored form is .

EXAMPLES

1. Is a factor of ?
2. Is a factor of ?
3. Is a factor of ?

1. Factor:
2. Factor:
3. Factor:

PRACTICE **1-2** NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[SHOW YOUR WORK]

For the given polynomials determine which of the binomials listed are factors.

1. 2.
   1. a.
   2. b.
   3. c.
2. k
3. 4.
   1. a.
   2. b.
   3. c.

Factor the following:

1. k