

NAME _____

Remainder and Factor Theorem

Determine the remainder if the polynomial $27x^4 + 60x^3 - 941x^2 - 226x + 280$ is divided by each of the following binomials. Then state if the binomial is a factor of the polynomial.

1. $x - 5$ Remainder: _____ Factor: YES or NO

2. $x + 8$ Remainder: _____ Factor: YES or NO

3. $7x - 2$ Remainder: _____ Factor: YES or NO

4. $3x + 2$ Remainder: _____ Factor: YES or NO