

Rational Root Theorem (version 3)

Date _____ Period _____

State the possible rational zeros for each function. Then factor each and find all zeros.

1) $f(x) = x^4 - 7x^2 - 8$

2) $f(x) = x^5 - 3x^4 - 2x^3 + 6x^2 - 3x + 9$

3) $f(x) = x^4 - 5x^2 - 6$

4) $f(x) = x^5 - 2x^4 - 4x + 8$

$$5) f(x) = x^5 + 5x^4 - 2x^3 - 10x^2 - 3x - 15$$

$$6) f(x) = x^4 + 5x^2 + 6$$

$$7) f(x) = x^5 + 2x^4 + 9x^3 + 18x^2 + 8x + 16$$

$$8) f(x) = x^4 + 4x^2 - 21$$