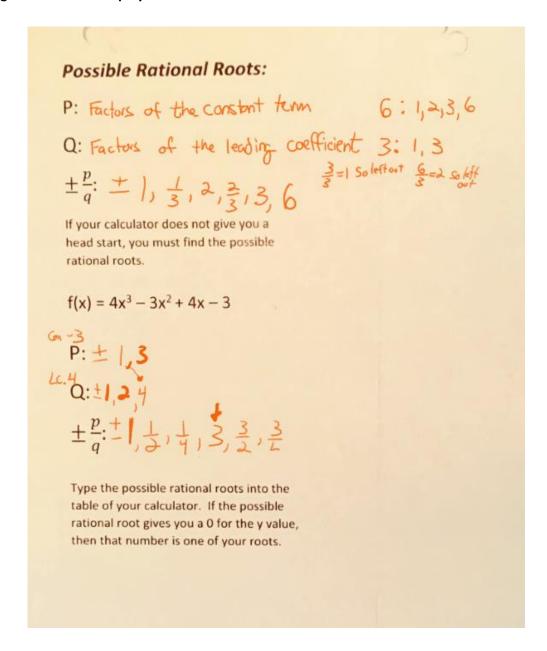
Today we learned about finding possible rational roots. Where the P's are the constant term and the Q's are the leading coefficient of the polynomial. Below are the notes we took in class and the homework assignment.



Finding Possible Rational Roots

Period Date

State the possible rational roots for each function.

1)
$$f(x) = 3x^4 - x^2 - 10$$

$$\pm \frac{P}{6}$$
: $\pm \left(\left(\frac{1}{5}, \frac{1}{5}$

$$P: \pm (1, \frac{1}{2}, 5, \frac{5}{8})$$

$$F(x) = 5x^4 - 48x^2 + 27$$

$$\frac{P}{e}$$
: $\frac{+}{(1, \frac{1}{5}, 3, \frac{3}{5}, 9, \frac{9}{5})}$

$$\xi: \pm (1, \pm 12, 4, 7, 7, 7, 14, 28)$$
9) $f(x) = 3x^3 - x^2 - 3x + 1$

2)
$$f(x) = 5x^3 + 9x^2 + 3x - 1$$

$$f(x) = 15x^5 - 5x^4 + 21x^3 - 7x^2 + 6x - 2$$

8)
$$f(x) = 5x^3 + 29x^2 + 19x - 5$$

10)
$$f(x) = 5x^4 - 13x^2 - 6$$

Find all roots. One root has been given. 11) $f(x) = x^4 - 26x^2 + 25$; -5 -5 10 -26 0 25 25 5 - 25 Boots: せり、さら (x2-1)(x-5) -21 8 20 16 -2 -12 -16 6 8 0 Roots: -4,-2,-2 x2+6x +8=0 -5 179-7-1 (X1-1)(X+L)=0 $-10x^2 - 4x + 24$; -3-31 -4 24 Roots 6 12 -24 -3,±2,2 x3-2x2-4x +8 =0 $(x^2-4)(x-2)=0$ x= +7 X=7