

Name: _____

This quiz covers: P.1 and P.3-P.6.

Directions: Complete all question and **show all applicable work.** Partial credit will be given. All questions are equally weighted.

1.) Write the following using interval notation: *The set of all real numbers less than or equal to 3.412 and greater than 2.*

2.) Factor $x^2 - 8x + 15$

3.) A rancher has 1600 feet of fencing that will fence off a rectangular grazing pen for cattle. One edge of the pen borders a straight river and needs no fence. Assuming that th edges of the pen perpendicular to the river are x feet long, write a completely factored polynomial whose values give the area of the pen.

4.) Compute: $\frac{2x + 3}{x - 3} - \frac{3x}{2}$

5.) Simplify: $\frac{3x^{\frac{2}{6}}}{6x^{\frac{2}{3}}}$