

F & T

Name _____

Long Division/Synthetic Division HW

1.) Divide $f(x) = x^3 - 6x^2 + 7x + 8$ by $x - 3$ and write your answer in $q(x) + \frac{r(x)}{d(x)}$ form.

2.) Divide $f(x) = x^4 - 10x^2 - 2x + 4$ by $x + 3$ and write your answer in $q(x) + \frac{r(x)}{d(x)}$ form.

3.) Simplify $\frac{x^4 - 5x^3 - 8x^2 + 13x - 12}{x - 6}$ and write your answer in $q(x) + \frac{r(x)}{d(x)}$ form.

4.) Simplify $\frac{2x^3 - 5x^2 - 4x + 6}{2x - 1}$ and write your answer in $q(x) + \frac{r(x)}{d(x)}$ form.

5.) Simplify $\frac{x^4 - 4x^3 - 15x^2 + 58x - 30}{x - 5}$ and write your answer in $q(x) + \frac{r(x)}{d(x)}$ form.

6.) Simplify $\frac{x^3 - 4x + 6}{x + 3}$ and write your answer in $q(x) + \frac{r(x)}{d(x)}$ form.