Algebra 2 Name_____

Polynomial Division Practice (Review Sheet, due Thursday)

Divide each pair of polynomials, and state whether or not the binomial is a factor.
For odd problems, use synthetic division.
For even problems, use long division.

Complete all work on a separate sheet of paper please!

1) $(n^3 - 5n^2 - 29n - 73) \div (n - 9)$

2) $(3x^4 - 11x^3 + 18x^2 - 6x - 10) \div (x - 1)$

3) $(8v^4 - 63v^3 - v^2 - 54v - 16) \div (v - 8)$

4) $(a^4 + 10a^3 + 20a^2 + 29a - 24) \div (a + 8)$

5) $(n^3 - 12n^2 + 30n + 25) \div (n - 5)$

6) $(v^3 + 3v^2 - 9v + 4) \div (v - 1)$

7) $(x^3 + 17x^2 + 78x + 54) \div (x + 9)$

8) $(x^4 - 6x^3 - 6x^2 + 21x + 2) \div (x + 2)$

9) $(k^3 - 9k^2 + 16k - 56) \div (k - 8)$

10) $(n^3 - 4n^2 + 4n + 5) \div (n + 1)$

Algebra 2 Name_____

Polynomial Division Practice (Review Sheet, due Thursday)

Divide each pair of polynomials, and state whether or not the binomial is a factor.
For odd problems, use synthetic division.
For even problems, use long division.

Complete all work on a separate sheet of paper please!

1) $(n^3 - 5n^2 - 29n - 73) \div (n - 9)$

$n^2 + 4n + 7 - \frac{10}{n - 9}$

2) $(3x^4 - 11x^3 + 18x^2 - 6x - 10) \div (x - 1)$

$3x^3 - 8x^2 + 10x + 4 - \frac{6}{x - 1}$

3) $(8v^4 - 63v^3 - v^2 - 54v - 16) \div (v - 8)$

$8v^3 + v^2 + 7v + 2$

4) $(a^4 + 10a^3 + 20a^2 + 29a - 24) \div (a + 8)$

$a^3 + 2a^2 + 4a - 3$

5) $(n^3 - 12n^2 + 30n + 25) \div (n - 5)$

$n^2 - 7n - 5$

6) $(v^3 + 3v^2 - 9v + 4) \div (v - 1)$

$v^2 + 4v - 5 - \frac{1}{v - 1}$

7) $(x^3 + 17x^2 + 78x + 54) \div (x + 9)$

$x^2 + 8x + 6$

8) $(x^4 - 6x^3 - 6x^2 + 21x + 2) \div (x + 2)$

$x^3 - 8x^2 + 10x + 1$

9) $(k^3 - 9k^2 + 16k - 56) \div (k - 8)$

$k^2 - k + 8 + \frac{8}{k - 8}$

10) $(n^3 - 4n^2 + 4n + 5) \div (n + 1)$

$n^2 - 5n + 9 - \frac{4}{n + 1}$