Name_____

More on Factors, Zeros, and Dividing

Date_____ Period____

Divide each polynomial function by the given binomial using long division.

1) $f(x) = x^3 + 9x^2 + 23x + 15;\ x + 5$

2) $f(x) = x^3 - x^2 - 14x + 24;\ x + 3$

3) $f(x) = x^4 + 3x^3 - 13x^2 - 15x;\ x - 3$

4) $f(x) = x^3 - 12x^2 + 47x - 60;\ x - 3$

5) $f(x) = x^3 - 7x^2 + 2x + 40;\ x - 5$

6) $f(x) = x^3 - 3x^2 - 9x + 27;\ x + 3$

7) $f(x) = 10x^3 + 33x^2 + 38x + 6;\ 5x - 1$

8) $f(x) = 25x^3 + 150x^2 + 131x + 30;\ 5x + 3$