

## Week 24: Polynomial Synthetic Division Practice

Date \_\_\_\_\_ Period \_\_\_\_\_

**Divide.**

1)  $(x^3 + 14x^2 + 51x + 26) \div (x + 8)$

2)  $(x^3 - 2x^2 - 10x + 10) \div (x + 3)$

3)  $(r^3 + 6r^2 - 8) \div (r + 6)$

4)  $(5m^3 + 31m^2 - 22m + 40) \div (m + 7)$

5)  $(x^3 + 7x^2 - x) \div (x + 7)$

6)  $(x^4 + 5x^3 + 2x^2 - 13x - 8) \div (x + 2)$

7)  $(x^4 - 20x^2 + 30x + 21) \div (x + 5)$

8)  $(r^4 - 3r^3 - 3r^2 + 7r + 1) \div (r - 2)$

9)  $(5n^4 - 23n^3 - 9n^2 - 29) \div (n - 5)$

10)  $(-28 - 10n^3 + 2n^4 + n^2) \div (-5 + n)$