Adv Alg

Name_____
Date_____Pd___

SYNTHETIC DIVISION

Divide using synthetic division. Clearly state the solution in proper polynomial form. Clearly state whether or not the factor and root exist. If so, clearly state the root.

1. $(3x^2 + 7x + 2) \div (x + 2)$
2. $(2x^2 + 7x - 15) \div (x + 5)$
3. $(7x^2 - 3x + 5) \div (x + 1)$
4. $(4x^2 + x + 1) \div (x - 2)$
5. $(3x^2 + 4x - x^4 - 2x^3 - 4) \div (x + 2)$
6. $(3x^2 - 4 + x^3) \div (x - 1)$

7. $(x^4 + 1) \div (x + 1)$

8. $(x^4 - 16) \div (x + 2)$

9. $(8x^5 + 32x^4 + 5x + 20) \div (x + 4)$