CW # 7 5.6 Factor Theorem, Factoring by Grouping , and Sum & Difference of cubes

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Determine if the given binomial is a factor of the polynomial P(x).

|  |  |
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| 1. (x + 1) for

 P(x) = $2x^{4}+ 2x^{3}-x^{2}-5x-4$  | 1. (x – 2) for

P(x) = $5x^{3 }+ x^{2}- 7$ |
| 1. (2x – 4) for

P(x) = $2x^{5}- 4x^{4}+ 2x^{2}-4x-4$ | 1. (x – 8) for

P(x) = $x^{5}- 8x^{4}+8x-64$ |

Factor each expression

|  |  |  |
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| 1. $8y^{3}- 4y^{2}-50y+25$
 | 1. $4b^{3}+3b^{2}-16b-12$
 | 1. $3x^{3}+x^{2}-27x-9$
 |
| 1. 125+$z^{3}$
 | 1. $6x^{4}-162x$
 | 1. $y^{5}+27y^{2}$
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