**PC12 LG 3A (Formative Assessment 2019)**

**Marking Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Student #: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**1. For the function**  **determine the interval(s) where the function is negative.**

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**2. Find the remainder when the polynomial** $x^{3}-4x^{2}-2x-1$ **is divided by**  $x-3$**.**

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**3. The zeros of a cubic function are 1 and -3 (*multiplicity 2*). Determine the equation of the function that has these zeros and passes through the point (-2, 9)**

**4. Determine the value of k so that**  **is a factor of** **.**

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**5.** **Use the graph of the given polynomial function to write its equation.**

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**6. For what value of *c* will the polynomial** $P\left(x\right)=3x^{3}+cx^{2} - 9x+2$ **have the same remainder**

 **when** **it is divided by** $\left(x+2\right) and \left(x+1\right) ?$

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**7. Factor**  **fully. Use synthetic or long division.**

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| Directions: |  | **See me about this** |  | **Move on to next guide** |  | **Review and redo** |

**PC12 LG 3B (Formative Assessment)**

**Marking Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Student #: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**1. For the function**  **determine the interval(s) where the function is positive.**

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**2. Find the remainder when the polynomial** $3x^{3}-2x^{2}+6x-1$ **is divided by** **.**

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**3. The zeros of a cubic function are 2 and -3 (*multiplicity 2*). Determine the equation of the function that has these zeros and passes through the point (-1, 24)**

**4. Determine the value of k so that** $ x+1$ **is a factor of** **.**

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**5. Use the graph of the given polynomial function to write its equation.**



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**6. For what value of *c* will the polynomial** $P\left(x\right)=x^{3}-2x^{2} - cx+7$ **have the same remainder**

 **when** **it is divided by** $\left(x+2\right) and \left(x-3\right) ?$

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**7. Factor** $ x^{3}-4x^{2}+x+6 $**fully. Use synthetic or long division.**

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| Directions: |  | **See me about this** |  | **Move on to next guide** |  | **Review and redo** |