**Chapter 4 Mid-Chapter Practice Test** SCORE \_\_\_\_\_\_\_\_\_\_\_\_\_

*(Lessons 4-1 through 4-4)*

**Part I Write the letter for the correct answer in the blank at the right of each question*.***

** 1.** Which function is graphed?

 **A** *f*(*x*) = $x^{2}$ – *x* – 6

 **B** *f*(*x*) = $x^{2}$ + 5*x* – 6

 **C** *f*(*x*) = $x^{2}$ + *x* – 6

 **D** *f*(*x*) = $(x-2)^{2}$

 **2.** By the Zero Product Property, if (3*x* – 1)(*x* + 5) = 0, then .

 **3.** Write a quadratic equation with 7 and $-\frac{5}{2}$ as its roots. Write the equation in the form *a*$x^{2}$ + *bx* + *c* = 0, where *a*, *b*, and *c* are integers.

 **4.** The current in one part of a series circuit is 3 – 2*j* amps. The current in another part of the circuit is 3 - 6*j* amps. Find the total amps in the circuit.

 **5.** Solve $x^{2}$ + 5*x* = –5. If exact roots cannot be found, state the consecutive integers between which the roots are located.

 **A** –2, –3 **C** between –4 and –3; between –2 and –1

 **B** –3 **D** between –5 and –4; between –2 and –1

**Part II**

 **6.** Solve $x^{2}$ – 4*x* + 3 = 0 by graphing.

 **7.** Determine whether *f*(*x*) = $-\frac{1}{2}x^{2}$–4 *x* – 9 has a maximum or a minimum value and find that value.

**For Questions 8 and 9, solve each equation by factoring.**

 **8.** $x^{2}$ – 3*x* = 40 **9.** 3$x^{2}$ = -*x*

**10.** Simplify $\frac{4i}{2+ 2i}$.

**1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

****

**7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**10.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**