**Homework 8.4 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Factor the following:**

1. $x^{2}+11x+10$ 2. $7x^{4 }+ 8x^{3}$ 3. $3x^{2}-8x+4$

4. $4x^{4 }+ 64x^{2}$ 5. $2x^{3 }- 9x^{2}-35x$ 6. $4x^{3 }- 56x^{2}+180x$

**Find your zeros:**

7. $x^{2}- 5x-6=0$ 8. $5x^{2 }=- 30x-40$ 9. $2x^{4 }+32x^{2}= 20x^{3}$

**What would you need to complete the square? (Fill in the blank)**

10. $x^{2}+10x \\_\\_\\_\\_\\_\\_\\_\\_$ 11. $x^{2}-22x \\_\\_\\_\\_\\_\\_\\_\\_$ 12. $x^{2}+16x \\_\\_\\_\\_\\_\\_\\_\\_$

13. $x^{2}-26x \\_\\_\\_\\_\\_\\_\\_\\_$ 14. $x^{2}+9x \\_\\_\\_\\_\\_\\_\\_\\_$ 15. $x^{2}-30x \\_\\_\\_\\_\\_\\_\\_\\_$