Name _____ Date _____ Pd ____

7.6 Factoring $ax^2 + bx + c$ DAY ONE WS

1 – 18: Factor the polynomial completely. Show all work for full credit.

1. $2c^2 - 14c - 36$

2. $4a^2 + 8a - 140$

3. $3x^2 - 6x - 24$

4. $2d^2 - 2d - 60$

5. $5s^2 + 55s + 50$

6. $3q^2 + 30q + 27$

7. $12g^2 - 37g + 28$

8. $6k^2 - 11k + 4$

9. $9w^2 + 9w + 2$

10. $12a^2 + 5a - 2$

11. $15b^2 + 14b - 8$

12. $5t^2 + 12t - 9$

13. $-12b^2 + 5b + 2$

14. $-6x^2 + x + 15$

15. $-60g^2 - 11g + 1$

16. $-2d^2 - d + 6$

17. $-3r^2 - 4r - 1$

18. $-8x^2 + 14x - 5$

19 – 20: Real-World Application. Show all work for full credit and be sure to use units where applicable.

19. The length of a rectangular shaped park is (3x + 5) miles. The width is (2x + 8) miles. The area of the park is 360 square miles. What are the dimensions of the park?

20. The sum of two numbers is 8. The sum of the squares of the two numbers is 34. What are the two numbers?