**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

***Factor the following questions using the specified method. Show all work, is possible.***

**GCF**

1. x2 – 5x 2. 3x – 12 3. 2 x2 + 12x

4. x2 + 3x 5. 4x3 + 4x 6. 6a2 b – 2ab2

7. 8ax – 56a 8. x3 – 2x2  9. 3x2 – 12x

10. 81 – 36xy 11. t2h + 3t 12. 5c3 – 2c2

13. 36xy2 – 48x2y 14. 75b2c3 + 60bc6 15. 6e3f – 11ef

16. 20p2 – 16p2 q2 17. 34x4y3 – 17x2y5 18. 35m3n + 105m2n3

**Grouping**

1. 25v3 + 5v2 + 30v + 6 2. 105n3 + 175n2 – 75n – 125
2. 96x3 – 84x2 + 112x – 98 4. 28y3 + 16y2 -21y – 12

5. 4v3 – 12v2 – 5v + 15 6. 49x3 – 35x2 + 56x – 40

7. 24p3 + 15p2 – 56p – 35 8. 24r3 – 64r2 - 21r + 56

9. 12x2u + 3x2v + 28yu + 7yv

**Difference of Perfect Squares**

1. x2 – 9 2. x2 – 36 3. 16x2 – 1

4. 49x2 – 1 5. 9x2 – 16 6. x2 – y2

7. 196x2 – 9 8. x2 – 36 9. 36x2 – 49

10. 225x2 -16 11. 4x2 – 100 12. 9 – x2

13. 625y4 – 16z4