**Honors Math 2**

**Factoring Classwork Practice**

**Factor completely:**

1. 3t2 + 36t + 105 2. 4a2 + a – 3

3(t + 5)(t + 7) (4a – 3)(a + 1)

3. x2 – 36 4. 49s2 – 100

(x + 6)(x – 6) (7s – 10)(7s + 10)

5. 21 – 7t + 3r – rt 6. 2b4 – 162

(3 – t)(7 + r) 2(b4 – 81) = 2(b2 – 9)(b2 + 9) = 2(b+ 3)(b – 3)(b2 + 9)

7. 25x2 - 60xy + 36y2 8. 8x2 + 14x - 15

2(3n – 8)(n – 3) (4x – 3)(2x + 5)

9. 6n2 - 34n + 48 10. 2c2 + 6c + 2cd + 6d

2(3n – 8)(n – 3) 2(c2 + 3c + cd + 3d) = 2[c(c + 3) + d(c + 3)=

2(c + 3)(c + d)

11. 6a3 - 18ab 12. x(y + c) - 10(y + c)

6a(a2 – 3b) (y + c)(x – 10)

14. 12at2 - 27ay10 15. t2 + 16

3a(4t2 – 9y10) = 3a(2t – 3y5)(2t + 3y5) prime

Answers to Adding, Subtracting & Multiplying Polynomials

1. -3k2 + 6k + 6 2. -12k2 + 3

3. 7x2 + 4x + 7 4. 10p2 – 3p – 12

5. -10n4 + 6n3 + 13n 6. 4x4 – 4x3 + 6

7. 40p2 + 59 p + 21 8. 9a2 + 3a – 6

9. 21x2 + 23x – 20 10. 16x2 + 44x + 30

11. 6k2 – 11k – 2 12. 16m2 + 28m + 10

13. 20n3 + 26n2 – 12n – 16 14. 25b3 – 10b2 -34b + 12

15. 15x3 + 2x2 – 42x – 24 16. 24x3 + 38x2 – 32x – 10

17. 48n4 – 42n3 -62n2 + 20n + 16 18. 18x4 + 48x3 + 78x2 + 52x + 14

19. 12v4 – 17v3 – 12v2 -35v – 28 20. 24x4 – 47x3 + 30x2 + 11x + 6