ALGEBRA MAL/DURCH F1B 14.05.2007 A

NAME:

1. $9a+(-3b)-(+2a)-(-5b) =$ $9a-3b-2a+5b = 7a+2b$

2. $(-19m-5n+1)-(-4m-2n-3) =$ $-19m-5n+1+4m+2n+3 = -15m-3n+4$

3. $12m-4n-(6m\pm 4n)-[(3m\mp 4n)\pm(2m+9n)] =$ $12m-4n-6m+4n-3m-4n$ $+2m+9n = 5m+5n$

4. $3c\cdot 6a\cdot 4mn\cdot 5a =$ $360a^2cmn$

5. $(ab)^2c^3\cdot a^2(bc)^3 =$ $a^2b^2\cdot c^3\cdot a^2\cdot b^3c^3 = a^4b^5c^6$

6. $(-2)^4 =$ 16

7. $(5xy^2z^3)^3 =$ $125x^3y^6z^9$

8. $-15(-12ac)(-25a)ac(-a) =$ $4500a^4c^2$

9. $(-7a^3)(-2ab)^3(-a^2b) =$ $(-7a^3)(-8a^3b^3)(-a^2b) = -56a^8b^4$

10. $4s(3t-s) =$ $12st-4s^2$

11. $(3m^2n+7mn^3)2m^2n^2 =$ $6m^4n^3+14m^3n^5$

12. $(3a-2)(2a+3) =$ $6a^2+5a-6$

13. $(2x+3y)^2 =$ $4x^2+12xy+9y^2$

14. $(5a^2-bc)^2 =$ $25a^4-10a^2bc+b^2c^2$

15. $(4s+3t)(s-t)+(3s-4t)(3s+4t) =$ $4s^2-4st+3st-3t^2+9s^2-12st+12st-16t^2$ $= 13s^2-st-19t^2$

16. $(2a-3)\cdot 10-(4a+5)(2a-7) =$ $20a-30\mp 8a^2\pm 28a\mp 10a\pm 35 = -8a^2+38a+5$

17. $648x^7y^2z^5 : 9x^7z^2 =$ $72y^2z^3$

18. $(9a^2-3+6b^2):3 =$ $3a^2-1+2b^2$

19. $(42x^2-70xy+35x^3):7x =$ $6x-10y+5x^2$

20. $(x-3)(x+3)(x^2+9) =$ $(x^2-9)(x^2+9) = x^4-81$