***Polynomials – Exam Review #7***

*Find each* ***sum*** *or* ***difference****.(Be careful with your* ***negatives!****)*

**1.** (4*y* + 5) + (–7*y* – 1) **2.** (– + 3*x*) – (5*x* + 2)

**3.** (4 + 8*k* + 2) – (2*k* + 3) **4.** (2 + 6*m*) + ( – 5*m* + 7)

*Write each polynomial in* ***standard form****. Then, identify the* ***leading coefficient****.*

**5.** 8 – 15 + 5 **6.** 10*x* – 7 + + 4

**7.** 13 – 5 + 6– *x* **8.** 4*x* + 2 – 6+ 2

*Find each* ***product****.*

**9.** *x*(2*x* – 5) **10.** 2*y*( *y* – 4)

**11.** 3*x*(5 – *x* + 4) **12.** –3(–2 + 3*n* + 4)

***Simplify*** *each expression. (HINT: First, get rid of any parentheses. Then, combine like terms.)*

**13.** *f* (5*f* – 3) – 2*f* **14.** –*p*(2*p* – 8) – 5*p*

**15.** 2*x*(3 + 4) – 3 **16.** 4*a*(5 – 4) + 9*a*

*Find each* ***product****.* ***Show all work.***

**17.** (*n* – 5)(*n* + 1) **18.** (3*c* + 1)(*c* – 2)

**19.** (5*a* – 2)(2*a* – 3) **20.** (*w* + 4)( + 3*w* – 6)

***Factor*** *each polynomial.*

**21**. 6x + 36 **22**. 25n + 15np

**23**. w3y – wy2 **24**. 4 + 16*ab*

***Factor*** *each quadratic trinomial.(Remember, this is when we have to find “magic numbers”: What multiplies to \_\_\_ and adds up to \_\_\_?)*

**25.**  – *w* – 6 **26.**  – 6*y* + 8

**27.** – 8*x* + 15 **28.**  – 9*b* + 8