Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ June 6, 2018

Kobrin/Losquadro Math 8

**Polynomials & Factoring Final Exam Review Packet 8**

**1.** Given the polynomial below, which shows the terms in standard form?

**2.** Classify the following expression below.

**5*m*2*n* + 9*n*3 – *mn*2 + 2*m*3**

**A.** 2*m*3 + 9*n*3 + 5*m*2*n* – *mn*2
**B.**  9*n*3 + 5*m*2*n* + 2*m*3 – *mn*2
**C.** 2*m*3 + 5*m*2*n* – *mn*2 + 9*n*3
**D.** 9*n*3 – *mn*2 + 5*m*2*n* + 2*m*3

**A.** Constant Monomial
**B.**  Linear Monomial**C.** Cubic Monomial**D.** Quartic Monomial

**3.** Classify the expression below.

**2*x*4 – *x* + 5**

**A.** Linear Trinomial
**B.**  Cubic Trinomial
**C.** Quadratic Trinomial

**D.** Quartic Trinomial

**4.** Simplify the expression below.

**(2*x*2 – 5*x* + 6) + (5*x*2 – 3*x* + 4)**

**A.** 7*x*2 – 8*x* + 10

**B.** 7*x*2 – 2*x* + 10
**C.** 7*x*2 – 8*x* + 2
**D.** 7*x*2 – 2*x* + 2

**6.** Simplify the expression below.

**5.** Simplify the expression below.

**(7*y*2 – 3*y*) – (4*y*2 + 2*y* – 2)**

**A.** 3*y*2 – 5*y* – 2

**B.** 3*y*2 – 5*y* + 2

**C.** 3*y*2 – *y* – 2
**D.** 3*y*2 – *y* + 2

**A.** 15*x*3*y* + 6*x*2*y*2 + 9*xy*3
**B.**  15*x*3*y* + 2*xy* + 3*y*3
**C.** 15*x*2*y* + 6*x*2*y*2 + 9*xy*2
**D.** 15*x*2 + 5*xy* + 3*y*2

**3*xy*(5*x*2 + 2*xy* + 3*y*2)**

 **8*x***

**7.** Choose one polynomial from each column below that will result in the given product. Write your answers in the boxes.

**24*x*3*y*2 + 16*xy*3 + 12*y*3**

4*xy*

4*x*2*y*

4*y*2

6*x*2*y* + 4*x* + 3*y*2

6*x*3 + 4*xy* + 3*y*

6*x* + 4*y* + 3

**Column 1**

**Column 2**

**8.** Simplify the expression below.

**9.** Simplify the expression below.

**11.** Simplify the expression below.

**10.** Simplify the expression below.

**5*w*(4*w*2 – 2*w*) + 3*w*(-2*w*2 + 4*w*)**

**(3*x* + 2)(3*x* – 2)**

**(*a* + 2)(3*a* – 1)**

**(*m* + 3)(*m*2 – 2*m* + 2)**

**A.** 8*a* – 2
**B.**  8*a* + 1
**C.** 3*a*2 + 4*a* – 2
**D.** 3*a*2 + 5*a* – 2

**A.** 10*w*3 + 4*w*2
**B.**  14*w*2 + 2*w*
**C.** 2*w*2 + 10*w*
**D.** 14*w*3 + 2*w*2

**A.** *m*3 + *m*2 – 4*m* + 6
**B.**  *m*3 – 2*m*2 + 6 **C.** *m*3 + *m*2 – 6*m* + 6 **D.** *m*2 – 3*m* + 6

**A.** 6*x*2
**B.**  9*x*2 – 4
**C.** 9*x*2 + 12*x* – 4
**D.** 9*x*2 – 12*x* – 4

**12.** Simplify the expression below.

**(2*y* + 1)2 – 4*y*2 + 2**

**A.** 4*y* + 3
**B.**  2*y* + 3
**C.** 3
**D.** -1

**13.** Simplify the expression below.

**A.** 5*a*2*b* – 3*a*
**B.**  5*a*2*b* – 3*ab* + *ab*  **C.** 5*a*2*b* – 3*a* + 1  **D.** 5*a*2*b* – 3*a* + 3

**14.** If the side length of a square could be given with by the expression **(2*x* + 5)**, what expression could represent its area?

**A.** 4*x*2 – 3
**B.**  4*x* + 10
**C.** 4*x*2 + 25
**D.** 4*x*2 + 20*x* + 25

**16.** Factor the expression below.

**50*a*3*b* – 8*ab***

**17.** Factor the expression below.

***k*2 + 16*k* + 64**

**15.** Which expression represents the area of the shaded region?

**A.** 2*x* – 10
**B.**  *x*2 – 10  **C.** *x*2 – 7*x* + 10  **D.** *x*2 + 7*x* – 10

 **5**

 **2**

***x***

***x***

**18.** Factor the expression below.

**8*m*2 – 6*m* – 5**

**20.** Factor the expression below.

**7*a*2 – 7*b*2**

**21.** Factor the expression below.

***x*3 + 9*x*2 – 52*x***

**19.** Factor the expression below.

***n*3 + 5*n*2 – 9*n* – 45**

**22.** Factor the expression below.

***w*2 – 3*w* – 18**

**23.** Factor the expression below.

**12*a*3*b*2 – 24*a*2*b* + 18*a***

**24.** Factor the expression below.

**6*x*3 + 12*x*2*y* – *x* – 2*y***

**25.** Factor the expression below.

***y*2 – 15*y* + 36**