Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ April 19, 2018

Kobrin/Losquadro Math 8

**Unit 9 – Factoring Review for Quiz**

1. What is the greatest common factor of 20y2 and 4y?
   1. 4
   2. y2
   3. 5y
   4. 4y
2. Which of the following is a factor of x3 – 5x2 – 9x + 45?
   1. x – 9
   2. x + 5
   3. x + 9
   4. x – 5
3. Factor the monomial 12x2y
   1. 2 • 6 • x • x • y
   2. 3 • 4 • x • y
   3. 3 • 4 • x • x • y
   4. 2 • 2 • 3 • x • x • y
4. What is the greatest common factor of d3 – d2 – 3d?
   1. d2
   2. –d
   3. d
   4. d2 – d – 3

*Factor each monomial*

1. 42abc
2. 36x3y2

Fi*nd the GCF of each set of monomials*

1. a3b & 6a2b
2. 49p3 & 14p

*Factor using the GCF*

1. 3w4 + 21w3
2. 5s3 + 30s2 + 40s
3. 12z4 – 3z2 + 6
4. 6b4 + 5b3 – 24b
5. 4x3y2 – 12x2y2
6. 6v3 – 18v2 + 36v
7. 30x4 + 58x3 – 24x2
8. a3b4 – a2b2 + a3b
9. 10x4y3 – 32x3y2 + 18x2y5
10. 60x4 – 114x3 – 36x2

*Factor the given expressions by grouping the terms*

1. z2 – 3z + xz – 3x
2. 5n3 – 2n2 + 15n – 6
3. ac – ad + 2bc – 2bd
4. 3x2 – 3x – x + 1

**Answer Key**

1. D
2. D
3. D
4. C
5. 2 ● 3 ● 7 ● a ● b ● c
6. 2 ● 2 ● 3 ● 3 ● x ● x ● x ● y ● y
7. a2b
8. 7p
9. 3w3(w + 7)
10. 5s(s2 + 6s + 8)
11. 3(4z4 – z2 + z)
12. B(6b3 + 5b2 – 24)
13. 4x2y2(x – 3)
14. 6v(v2 – 9v + 6)
15. 2x2 (15x2 + 29x – 12)
16. a2b (ab3 – b + a)
17. 2x2y2 (5x2y – 16x + 9y3)
18. 6x2 (10x2 – 19x – 6)
19. (z + x)(x – 3)
20. (n2 + 3)(5n – 2)
21. (a + 2b)(c – d)
22. (3x – 1)(x – 1)