

ALEKS® Exponents and Polynomials Quiz 2 #1

Beginning and Intermediate Algebra Combined / MATH 102 - Fall 2014 – 504 (Prof. Miller)

Student Name/ID:

Instructor Note:

Directions: Every problem is worth two points. One point is for trying the problem and showing your work and one point is for getting the correct answer. There are an additional five points for demonstrating the study strategy that is posted on the board and talked about at the beginning of class.

1. Factor completely:

$$32u^2 - 2u^2v^4$$

2. Multiply.

$$(3v + 3y - 4)(4v - y)$$

Simplify your answer.

3. Divide.

$$\frac{6x^4 - 12x^3}{2x^2}$$

Simplify your answer as much as possible.

4. Simplify.

$$(5w^2 + 9w + 4) + (-2w^2 + 4w + 4) - (-5w^2 + 7w - 5)$$

5. Factor by grouping.

$$ux - 7x - 3u + 21$$

6. Factor completely.

$$9x^5 + 24x^4 + 12x^3$$

7. Solve for u

$$u^2 - 10u + 21 = 0$$

8. Find the greatest common factor of $9x^2$ and $6y^3$

9. Write the quadratic equation whose roots are 1 and -4 , and whose leading coefficient is 3.

10. Find the greatest common factor of these two expressions.

$$16y^4u^6v^2 \text{ and } 24u^8v^7$$

11. The length of a rectangle is 5 yd less than twice the width, and the area of the rectangle is 33 yd^2 . Find the dimensions of the rectangle.

12. Factor.

$$3y^2 - 4y - 7$$

13. Factor by grouping.

$$5y^3 - 2y^2 - 35y + 14$$

14. Divide.

$$(24x^3 + 4x^2 + 14x + 3) \div (6x - 2)$$

Your answer should give the quotient and the remainder.

Quotient:

Remainder:

15. Factor.

$$3y^2 - 4y - 20$$

Exponents and Polynomials Quiz 2 #1 Answers for class Beginning and Intermediate Algebra Combined / MATH 102 - Fall 2014 – 504

1. $2u^2(2-v)(2+v)(4+v^2)$

2. $12v^2 + 9vy - 3y^2 - 16v + 4y$

3. $3x^2 - 6x$

4. $8w^2 + 6w + 13$

5. $(u-7)(x-3)$

6. $3x^3(x+2)(3x+2)$

7. $u = 37$

8. 3

9. $3x^2 + 9x - 12 = 0$

10. $8u^6v^2$

11. Length: 6 yd
Width: 5.5 yd

12. $(y+1)(3y-7)$

13. $(5y-2)(y^2-7)$

14. Quotient: $4x^2 + 2x + 3$
Remainder: 9

15. $(y+2)(3y-10)$