Advanced Algebra II Quiz 7.1-7.5 Name

Block

Factor the following completely. (3pts each)

1. 12a3b5 + 18ac 2. 9x2 – 36 3. x2 + 14xy – 15y2

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4. 4x2 + 2x – 30 5. 4z2 + 25z + 6 6. 9x2 – 48x + 64

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7. x3 + c3 8. 8p3 – w3 9. (x + a)y + (x + a)(3p-4)

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10. Prove that 36x2 + 72x + 25 is prime. (3pts each)

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Multiply.(3pts each)

11. (3x – 7)(4x + 8) 12. (x2 – 7x + 3)(x – 4)

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13. (5x + 11)2 14. (x – 3)(x + 5)(x – 8)

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Divide by using long division. Write the answer in mixed-number (or polynomial ) form.

15. 16.

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Use synthetic division to find the quotient and remainder. (3pts each)

17. 18.

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Sketch the graph, showing especially the behavior where the denominator equals zero. On the line provided, write any discontinuities. (3pts each)

19. *f*(x) = 20. *g*(x) =

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