Quiz #1.2 – Relationships and Reasoning

Name: _____ Class: _____

1.) Fill in the blanks of this proof showing that $(x+8)(x+5)$ is equivalent to $x^2+13x+40$. Write either "Commutative Property," "Associative Property," or "Distributive Property" in each blank. **(5 points)**

$(x+5)(x+8)$ $= x(x+8)+5(x+8)$ _____

$= x^2 + x \bullet 8 + 5(x+8)$ _____

$= x^2 + 8x + 5(x+8)$ _____

$= x^2 + 8x + 5x + 40$ _____

$= x^2 + (5x+8x) + 40$ _____

$= x^2 + 13x + 40$

2.) Find each **sum** or **difference** by combining the parts that are alike. **(5 points)**

a.) $(8g^2+4g-1)-(6g^2+g-3)$

b.) $(9x^4+5x)-3x(x^2-4)$

3.) Which of the following would be classified as a trinomial? **(2 points)**

(A) $7x+3$

(B) $8h$

(C) $5x^2+4x-1$

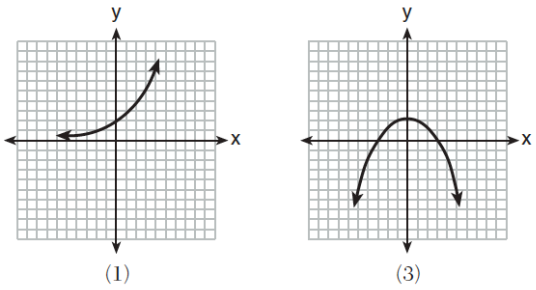
(D) $6y^3+2y^2-9y+3$

4.) Marcus believes that $(x+y)^2 = x^2+y^2$. Do you think he is right? Justify your reasoning. **(5 points)**

5.) Multiply the polynomials below. You may use the distributive property or a geometric model. **(5 points)**

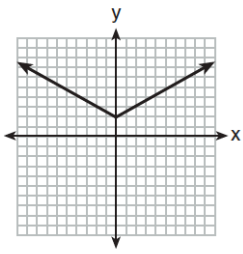
$(2n+3)(6n^2-2n+1)$

6.) Which graph represents an exponential function? **(2 points)**



(1)

(3)



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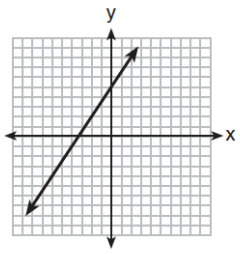

(4)

7.) Simplify the radical. $\sqrt{63}$ **(2 points)**

8.) Draw a flow-chart to show that $(x+y)+z$ is equivalent to $(z+y)+x$. Indicate which properties apply in the flow chart (Use "A" for associative, "C" for commutative, and "D" for distributive.) **(3 points)**

***Bonus* (1 point)** Which property is shown? $5+(3+8)=(3+8)+5$