Algebra 1B **Unit 1 Homework #1** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period:\_\_\_\_\_\_

*Identify each of the following properties:*

1. 4(*x* + 2) – 3 = 4*x* + 8 – 3 2. 8+ (2 + 6) = (8 + 2) + 6 3. 2(3)(5) = 3(5)(2)

*Tell whether the statement is* ***always****,* ***sometimes****, or* ***never*** *true for all real numbers. Explain your answer.*

4. (*a* +*b*) + *c* = *a* + (*b* + *c*) 5. *a*(*b* – *c*) = *ab* – *bc* 6. (*a* – *b*) – *c* = *a* – (*b* – *c* )

*Classify each of the following numbers into all appropriate number systems.*

7. 15 8. -3.72828282... 9. 5*i*

10. Give an example of a number that is rational but not an integer.

11. Give an example of a number that is irrational and non-negative.

12. Is it possible to have a number that is rational and not complex? Explain your answer.