* Adding polynomials – combine like terms

Ex. =

* Subtracting polynomials – distribute negative and combine like terms

Ex. = =

* Multiplying Polynomials

Distribute all terms to all terms. Multiply coefficients and add exponents.

Ex. =

Ex. =

Ex. =

* Dividing Polynomials

You will only have to do synthetic division! We know how to do synthetic division.

* Combination with a value

Plug the number in to each function and then perform the given operation (add, subtract, multiply or divide)

* Composition

means to plug g(x) into f(x)

If there’s a number plug it in to the inside function first and then take the new number and plug it into the outside function.

* Inverse

1. switch x and y

2. solve for y (get the y by itself)

Add or subtract.

1. 2.

3.  4. 

5. 6.

Multiply.

7. 8.

9. 10.

Divide using synthetic division. (remember 0’s when you have missing factors)

11. 12.

13. 14.

Given f(x) = 3x – 2, g(x) = x2 – 4 and h(x) = x + 5, find the following:

15. (f+g)(-2) =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 16. (f – g)(6) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. (f∙g)(1) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 18. (g/h)(0) =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19. g(f(-1)) =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 20. f(g(3)) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For 21-22 use and

21. Find 22. Find

Find the inverse of the following functions.

23. 24.

25. 26.