| Int2Acc | **HW 4-5**
Function Division | **Unit 4** |

#1-6: Find the GCF of each of the following.

1. 10, 30

2. $29hj$, $58h$

3. $8k$, $18km$

4. $3b$, 12

5. $10rs$, $30rs$

6. $15g$, $25gh$

#7-12: Factor each of the following expressions.

7. $12a + 10$

8. $18m + 27$

9. $8b + 32$

10. $18z - 45$

11. $36h - 16$

12. $50c - 25$

#13-16: Let $f(x) = 2x + 6$, $g(x) = 3x$, and $h(x) = 12x$. Perform the indicated operation.

13. $\left(\dfrac{f}{h}\right)(x)$

14. $\left(\dfrac{g}{f}\right)(x)$

15. $\left(\dfrac{f}{f}\right)(x)$

16. $\left(\dfrac{g}{h}\right)(x)$

#17-22: Let $f(x)=2x$, $g(x)=4x+2$, $h(x)=8x+12$, **and** $k(x)=6$. **Perform each division.**

17. $\left(\dfrac{f}{g}\right)(x)$

18. $\left(\dfrac{h}{f}\right)(x)$

19. $\left(\dfrac{g}{k}\right)(x)$

20. $\left(\dfrac{g}{f}\right)(x)$

21. $\left(\dfrac{k}{f}\right)(x)$

22. $\left(\dfrac{h}{h}\right)(x)$

23. Given $f(x)=9x+3$ and $g(x)=2x-7$, what is $(g-f)(x)$?

24. Given $f(x)=6x$ and $g(x)=18$, what is $\left(\dfrac{g}{f}\right)(x)$?

25. Given $f(x)=-4x+8$ and $g(x)=5x$, what is $(f \cdot g)(x)$?

26. Given $f(x)=3x-9$, what is $-2[f(x)]+7$?

27. Given $f(x)=-6x+2$ and $g(x)=12x-5$, what is $(f-g)(x)$?

28. Given $f(x)=12x+9$ and $g(x)=3x$, what is $\left(\dfrac{f}{g}\right)(x)$?

29. Given $f(x) = 7x + 1$ and $g(x) = 3x$, what is $(f \cdot g)(x)$?

30. Given $f(x) = -2x + 6$, what is $4[f(x)] - 10$?

31. Given $f(x) = 14x - 9$ and $g(x) = 4x - 3$, what is $(g + f)(x)$?

32. Given $f(x) = 15x$ and $g(x) = 40x$, what is $\left(\dfrac{f}{g}\right)(x)$?

33. Given $f(x) = 7x + 12$ and $g(x) = 2$, what is $(f \cdot g)(x)$?

34. Given $f(x) = -6x + 11$, what is $-[f(x)] + 20$?

35. Given $f(x) = 5x + 16$ and $g(x) = 14x - 5$, what is $(g - f)(x)$?

36. Given $f(x) = 7$ and $g(x) = 7x + 14$, what is $\left(\dfrac{g}{f}\right)(x)$?