Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Working with Expressions:

Adding and Subtracting Functions

Independent Practice

1. Let $f\left(x\right)=7x^{2}-5x+3$ and $g\left(x\right)=2x^{2}+4x-6$.

*Part A*: Find$f\left(x\right)+g(x)$

*Part B:* Find $f\left(x\right)-g(x)$

*Part C*: Find$g\left(x\right)-f\left(x\right)$

1. The perimeter of the triangle below is $4x + 3y$. Find the measure of the missing side.



1. The perimeter of a trapezoid is $39a – 7$. Three sides have the following lengths: $9a$, $5a + 1$, and $17a – 6$.

What is the length of the fourth side?

1. Jocelyn and Lorlesha are comparing the size of their villages in the Clash of Clans app. The area of Jocelyn’s village is represented by the polynomial, $2w^{2}+10w+12$. The area of Lorlesha’s village is represented by the polynomial, $3w^{2}+4w-5$, where $w$ represents the width, in meters of their Town Hall.

*Part A:* Find the expression that represents the additional area of Jocelyn’s village.

*Part B:* Find the expressions that represents the combined total area of their villages.