Trajectory: Algebra

1. Early finishers: In the following two problems, solve for the value of x.

(a)
$$2x + 3 = x + 9$$

(b)
$$\frac{1}{2}(11-x)=5$$

2. Given the linear function f(x) = 3x + 4.

(a) Find
$$f(0)$$

(b)
$$f(x) = 10$$
. Find x .

3. Solve for the value of x.

(a)
$$3x - 3 = x + 7$$

(b)
$$\frac{1}{2}(4x+2) = 7$$

- 4. Given the linear function f(x) = 2x 6.
 - (a) f(x) = 0. Find x.

(b) Find f(2)

5. Solve for the value of x.

(a)
$$\frac{4}{3}(6x - 3) = x + 10$$

(b)
$$\frac{2}{5}(x-1) + \frac{5}{2}(1-x) = 0$$

6. Given the linear function f(x) = -2x + 14, find x.

Trajectories 2022-2023

(a) Find f(4)

(b) f(x) = 21. Find x.

7. Given $x^2 + 9x + 8 = 0$. Factor and find the roots.

8. Given $x^2 + 8x + 7 = 0$. Factor and find the roots.

9. Given $x^2 + 6x + 5 = 0$. Factor and find the roots.