Problem 1. Determine the **distance** and the **midpoint** between $(-2, 5)$ and $(-7, -3)$. Round to the nearest hundredth, as needed

Problem 2. Evaluate $f(-4)$ and $f(11)$, if $f(x) = 2x^2 - x - 8$

Problem 3. Write the slop-intercept form equation of each line.

- slope 2, passes through $(0, 1)$

- passes through $(5, -6)$ and $(9, -2)$

Problem 4. Write the point-slope form equation of the line passes through $(4, -5)$ and $(1, 2)$

Problem 5. If l and p are parallel to each other, and line l passes through $(9, 4)$. line p is the graph of $y + 5 = -(x + 2)$, what is the slope-intercept form equation of l?

Problem 6. Find the real x value(s) so that the two functions $p(x) = 2 + 40x - x^2$ and $q(x) = 4x^2 + 6x - 5$ are equal.

Problem 7. If $f(x) = 5 - x^2$ and $g(x) = 6 - x$, what is $(fg)(x)$?

Problem 8. Find $g(f(-4))$, if $f(x) = 8 - x^2$ and $g(x) = \frac{x}{x+1}$.