1. Find the equation of the line through the points (1,3) and (3,1).

2. Find the equation of the line through the point (2,3) and with slope 2.

3. Solve this equation for $t$: $y = A + \frac{C}{(2-t)}$

5. The inequality $\frac{|3-x|}{2} \leq 4$ describes an interval on the line. Find that interval.

6. Find all real numbers $x$ satisfying $x^2 + 3x > 10$

7. What is the area of the triangle bounded by the lines $y = 2x$, $y = -3x + 15$, and the x axis.

8. Let $f(x) = x^2 - 1$ and let $g(x) = \frac{(x+1)}{(x+2)}$. Determine $f(g(0))$ and $g(f(0))$.

9. Find all numbers $x$ satisfying $\frac{1}{(x+2)} + \frac{1}{x} = 1$.

10. Find $x$ satisfying $22x = 8(x+1)$.

11. What is $sin(\frac{5\pi}{4})$?

12. Calculate the area of the following right angle triangle where angle $ABC$ is a right angle, angle $ACB$ is 60 degrees, and edge $AB$ measures 8cm. What is the length of hypotenuse $AC$?