[3] 7. Use synthetic division to determine whether $x + 2$ is a factor of $x^3 - 3x + 2$.

[6] 8. Solve the following equations or show that there's no solution:

a. $x^2 = x + 2$
b. $2x - (x + 1) = 3(x + 5)$
c. $(x - 1)^2 = -2$

[6] 9. Solve the inequalities:

a. $4x + 7 > 4 - 2x$
b. $|3x - 1| \leq 2$

[3] 10. Write an equation of a line passing through the point (2, 1) and parallel to the line $y = 2x$.

[3] 11. Write an equation of the circle with diameter 4 and centre $(1, -1)$.

[6] 12. Find the domain of the functions:

a. $f(x) = \sqrt{x^2 - 1}$ b. $f(x) = \frac{-1}{\sqrt{x+1}}$

[2] 13. Clearly show and explain how the graph of $f(x) = (x + 2)^2$ can be obtained from the graph of $g(x) = x^2$.