Problem 1. Factor the expression compactly
- $x^2 + x^3$
- $x^5 - x$
- $x^{\frac{5}{2}} - 6x^{\frac{3}{2}} + 9x^{\frac{1}{2}}$
- $x^5 - x^4 + x - 1$
- $3a^4 - 24a$
- $2a^3 + 2a^2 - 4a$

Problem 2. Obtain an equation of the line
- With slope $m = 2$ through point $(-1, 3)$.
- Through points $(2, 1)$ and $(-1, 6)$.
- Through points $(2, 1)$ and $(2, 2)$.
- Which is parallel to line $y = -\frac{1}{2}x + 3$ and goes through point $(2, 2)$.
- Which is perpendicular to line $y = -\frac{1}{2}x + 3$ and goes through point $(2, 2)$.

Problem 3. Find the slope and the $y$ and $x$-intercept of the line
- $y = 2x + 1$
- $2x - 2y = 3$
- $3x - y + 1 = 0$