Exercise 1. Consider the quadratic polynomial x^2-4x+8. Convert it to vertex form. *That is, convert it to the form $(x-h)^2+k$, where (h,k) is the vertex of this quadratic curve.*

Exercise 2. Match the following radicals of polynomials with their result after doing the correct trigonometric substitution.

1. $\sqrt{4-x^2}$	( ) $\tan(\theta)$
2. $\sqrt{9x^2-1}$	( ) $2\sec(\theta)$
3. $\sqrt{4+25x^2}$	( ) $2\sin(\theta)$

Exercise 3. Evaluate the integral $\displaystyle\int \frac{\sqrt{1-x^2}}{x}\mathrm{d}x$ using the correct trigonometric substitution. *Your answer must be a function depending on x.*

Exercise 4. Evaluate the integral $\displaystyle\int \frac{\mathrm{d}x}{\sqrt{4x^2-4x+5}}$. *Your answer must be a function depending on x.*