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The Art of Mathematics

This project is mainly done as a website. It is hosted on GitHub Pages and available through https://theartofmathematics.github.io. The repository is also public and available on GitHub. This document is only a demonstration of the main project. Please read the instructions when you open the website as it is shown only once. Currently, there are 2 images available on the website. I have used the king of the playing cards in this demonstration firstly because there is a vast usage of different functions in the design and secondly because it's a good example of the industrial employment of mathematical functions. You can find the references in the following. Hope you find them useful.

References:

MathJax, Mathematical Notations, https://www.mathjax.org/
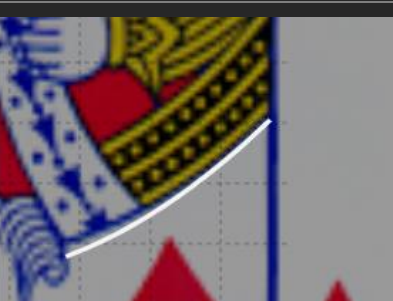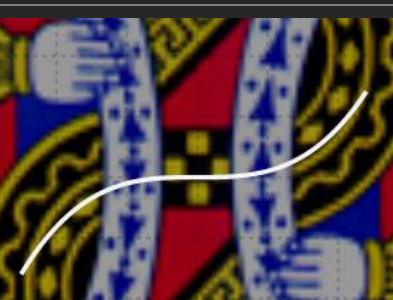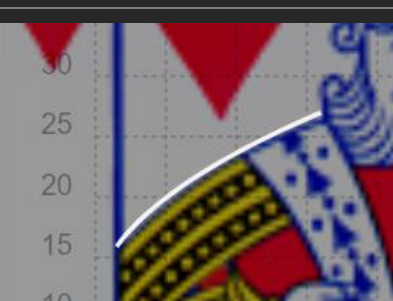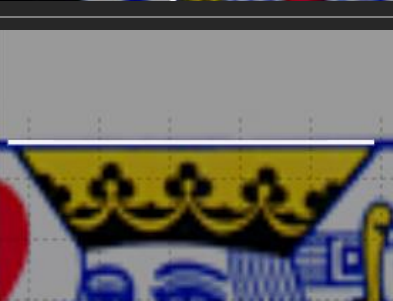
Chartist.Js, Responsive Charts, http://gionkunz.github.io/chartist-js/

Preview	Type	Base Form	Equation	Domain	Range	Key Points
	Linear	$y = x$	$y = 0.6x + 18$	$-8 \leq x \leq 12$	$13.2 \leq y \leq 24.6$	(-8, 13.2) (12, 24.6)
	Linear	$y = x$	$y = 0.6x - 17$	$-9 \leq x \leq 9$	$-22.4 \leq y \leq -12.2$	(-9, -22.4) (9, -12.2)
	Absolute Value	$y = |x|$	$y = |x + 32.5| + 26$	$-45 \leq x \leq -19$	$26.5 \leq y \leq 38.5$	(-45, 26.5) (-32.5, 26) (-20, 26.5)
	Absolute Value	$y = |x|$	$y = -|x - 33| - 24$	$20 \leq x \leq 47$	$-37 \leq y \leq 24$	(20, -37) (33, -24) (46, -37)
	Quadratic	$y = x^2$	$y = 0.006x^2 - 28$	$18 \leq x < 48$	$-26.6 \leq y \leq -14.75$	(0, -28) (18, -26.6) (48, -14.75)
	Cubic	$y = x^3$	$y = 0.08x^3$	$-25 \leq x \leq 25$	$-8 \leq y \leq 7.08$	(0, 0) (-25, -8) (25, 7.08)
	Sqaure Root	$y = \sqrt{x}$	$y = \sqrt{8(x + 50)} + 11$	$-47 \leq x \leq -17$	$15.9 \leq y \leq 27$	(-50, 11) (-17, 27.24)
	Square Root	$y = \sqrt{x}$	$y = \sqrt{55(x - 5)}$	$5 \leq x \leq 16$	$0 \leq y \leq 23.45$	(5, 0) (16, 23.45)
	Logarithmic	$y = \log_c x$	$y = 21 \times \log_{0.1} -(x + 4)$	$-17 \leq x \leq -4$	$-23.39 \leq y \leq 0$	(-5, 0) (-14, -21)
	Constant	$y = c$	$y = 48$	$-23 \leq x \leq 30$	$y \in \{48\}$	(-23, 48) (30, 48)
	Constant	$y = c$	$y = -46$	$-30 \leq x \leq 23$	$y \in \{-46\}$	(-30, -46) (23, -46)
	Half-Circle	$y = \sqrt{r^2 - x^2}$	$y = \sqrt{7^2 - (x + 26)^2} + 38$	$-32 \leq x \leq -19$	$41.61 \leq y \leq 45$	(-23, 41.61) (-26, 45) (-19, 45)