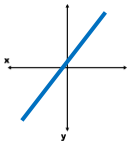
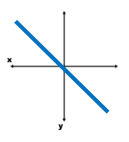
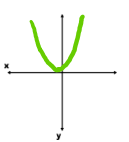
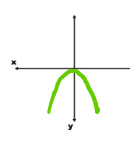
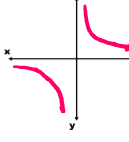
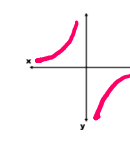
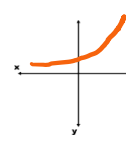
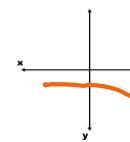
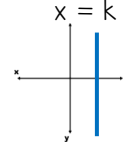
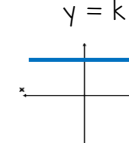
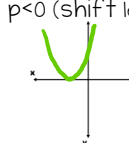
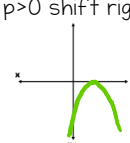

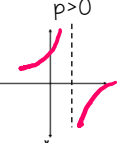
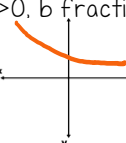
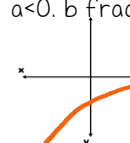
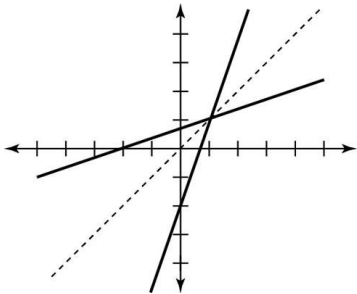
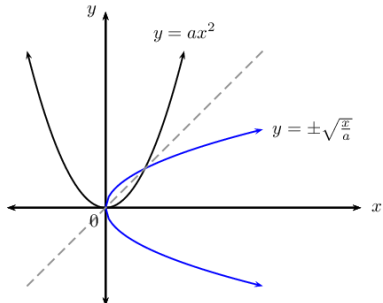


GR 11 FUNCTIONS SUMMARY SHEET

	Linear		Parabola		Hyperbola		Exponential	
Equation	$y = ax + q$		$y = ax^2 + bx + c$ $y = a(x - p)^2 + q$		$y = \frac{a}{x - p} + q$		$y = a \cdot b^x + q$ b must be +	
Shape	$a > 0$ 	$a < 0$ 	$a > 0$ 	$a < 0$ 	$a > 0$ 	$a < 0$ 	$a > 0, b > 1$ 	$a < 0, b > 1$ 
	$x = k$ 	$y = k$ 	$p < 0$ (shift left) 	$p > 0$ shift right 	$p < 0$ 	$p > 0$ 	$a > 0, b$ fraction 	$a < 0, b$ fraction 
Domain	$x \in \mathbb{R}$	$x \in \mathbb{R}$	$x \in \mathbb{R}$	$x \in \mathbb{R}$	$x \in \mathbb{R}, x \neq p$	$x \in \mathbb{R}, x \neq p$	$x \in \mathbb{R}$	$x \in \mathbb{R}$
Range	$y \in \mathbb{R}$	$y \in \mathbb{R}$	$y \in [q; \infty)$	$y \in (-\infty; q]$	$y \in \mathbb{R}, y \neq q$	$y \in \mathbb{R}, y \neq q$	$y \in (q; \infty)$	$y \in (-\infty; q]$
Notes	a = gradient q = y-intercept		(p, q) is turning point $x = -\frac{b}{2a}$ or $\frac{dy}{dx} = 0$		p is vertical asymptote q is horizontal asymptote		q is horizontal asymptote	
Inverse $f^{-1}(x)$	Reflection about line $y = x$ (switch x and y)							
			Must restrict domain of original function to ensure the inverse is a function 				Log function ($y = \log_a x$) 