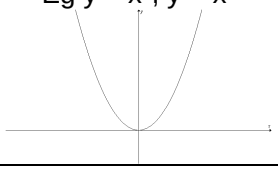
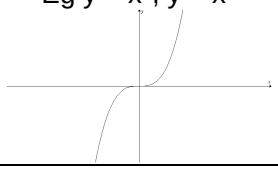
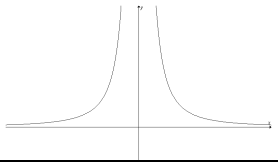
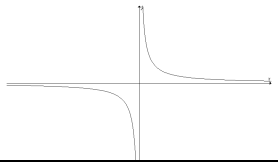
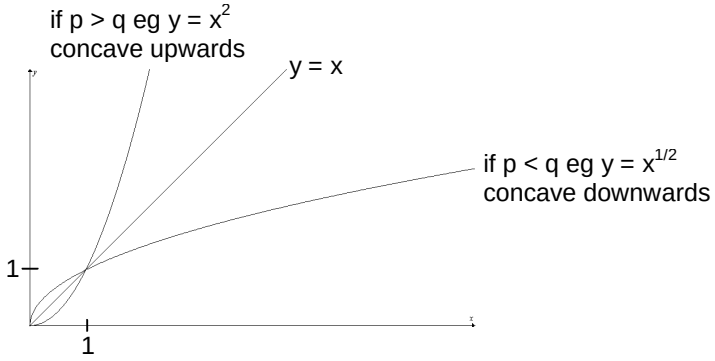
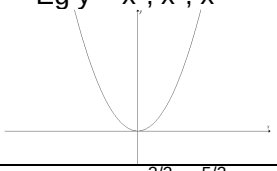
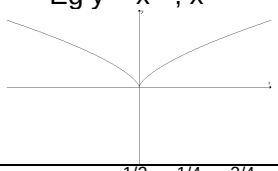
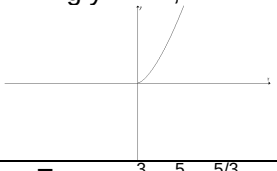
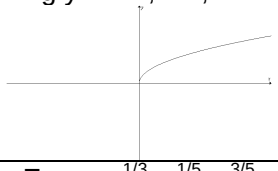
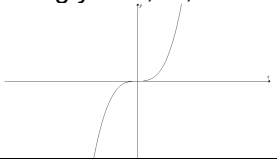
The graph of $y = x^n$, where n is an integer

	n is even	**n is odd**
n positive	Eg $y = x^2$, $y = x^4$ 	Eg $y = x^3$, $y = x^5$ 
n negative	Eg $y = \frac{1}{x^2}$, $y = \frac{1}{x^4}$ 	Eg $y = \frac{1}{x}$, $y = \frac{1}{x^3}$ 

The graph of $y = x^{p/q}$ in the first quadrant



The graph of $y = x^{p/q}$

	p/q > 1	**p/q < 1**
If **p is even**, the function is always ≥ 0 and the curve lies in the first & second quadrants	Eg $y = x^2$, x^4, $x^{4/3}$ 	Eg $y = x^{2/3}$, $x^{2/5}$ 
If **q is even**, the function is only defined for x ≥ 0 and the curve only lies in the first quadrant	Eg $y = x^{3/2}$, $x^{5/2}$ 	Eg $y = x^{1/2}$, $x^{1/4}$, $x^{3/4}$ 
If **p & q are both odd**, $x^{p/q}$ has the same sign as x and the curve lies in the first & third quadrants	Eg $y = x^3$, x^5, $x^{5/3}$ 	Eg $y = x^{1/3}$, $x^{1/5}$, $x^{3/5}$