

(2) Sketch each function and fill in the blanks. (Intercept)

(54)

name	Function	Sketch	Domain	Range	One point on curve	Asymptotes (write equations or "none")
cubic poly	A) $y = x^3$		$\mathbb{R}$	$\mathbb{R}$	(0,0)	none
quadratic parabola	B) $y = x^2$		$\mathbb{R}$	$\{y \geq 0\}$	(0,0)	none
rectang. hyperbola	C) $y = \frac{1}{x}$		$\{x \neq 0\}$	$\{y \neq 0\}$	(1,1)	$x=0$ $y=0$
exp. growth	D) $y = \pi^x$		$\mathbb{R}$	$\{y > 0\}$	(0,1)	$y=0$
exp. decay	E) $y = (\frac{1}{2})^x$		$\mathbb{R}$	$\{y > 0\}$	(0,1)	$y=0$
root	F) $y = \sqrt{x}$		$\{x \geq 0\}$	$\{y \geq 0\}$	(0,0)	none
cubed root	G) $y = \sqrt[3]{x}$		$\mathbb{R}$	$\mathbb{R}$	(0,0)	none
log. growth	H) $\pi^x = x$ $y = \log_{\pi} x$		$\{x > 0\}$	$\mathbb{R}$	(1,0)	$x=0$
log. decay	I) $y = \log_{\frac{1}{2}} x$		$\{x > 0\}$	$\mathbb{R}$	(1,0)	$x=0$