

1. Complete the table:

#	x-intercept(s)	y-intercept	direction of opening	equation of axis of symmetry	vertex	
					above/below/on x-axis?	is it a maximum or a minimum?
a	1, 5	9	u	$x = 3$	b	min
b	-6, 10	2	d	$x = 2$	a	max
c	-11, -3	12	u	$x = -7$	b	min
d	-10, 5	-8	u	$x = -\frac{5}{2}$	b	min
e	1, 2	-10	d	$x = \frac{3}{2}$	a	max
f	-3	-7	d	$x = -3$	on	max
g	5	8	u	$x = 5$	on	min
h	0	0	d	$x = 0$	on	max
i	-3, 3	-15	u	$x = 0$	b	min
j	0, -12	0	u	$x = -6$	b	min

2. Complete the table:

#	x-int(s)	y-int or point on parabola	equation of parabola	coordinates of vertex	optimum	
					value	is it a maximum or a minimum?
a	-7, -3	21	$y = (x+7)(x+3)$	(-5, -4)	-4	min
b	-5, 1	-10	$y = 2(x-1)(x+5)$	(-2, -18)	-18	min
c	7, 9	(6, -9)	$y = -3(x-9)(x-7)$	(8, 3)	3	max
d	-4, 4	32	$y = -2(x+4)(x-4)$	(0, 32)	32	max
e	0, 6	(8, 16)	$y = x(x-6)$	(3, -9)	-9	min
f	-2, 0	(-5, -75)	$y = -5x(x+2)$	(-1, 5)	5	max
g	none	12		(3, 7)	7	min
h	none	-20		(-2, -9)	-9	max
i	none	(1, -9)	$y = -4x^2 - 5$	(0, -5)	-5	max
j	none	(4, 12)	$y = \frac{1}{2}x^2 + 4$	(0, 4)	4	min