

TRS 92: Intercepts of Functions

Function $f(x)$	
x	$f(x)$
-3	10
-1	6
0	4
2	0
10	-16

Function $g(x)$	
x	$g(x)$
-4	-28
-1.4	0
0	4
1.4	0
5	-46

Function $h(x)$	
x	$h(x)$
-5	23
-3.75	16.75
-1.5	5.5
0	-2
1	-7

Function $j(x)$	
x	$j(x)$
6	8
3	0
1	-4
-2	-7
-7	-10

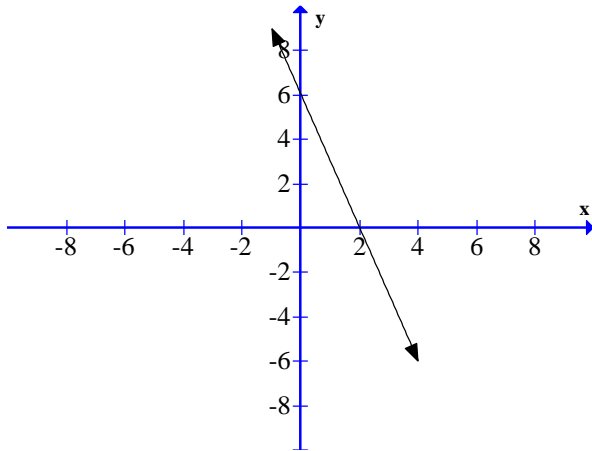
1. Identify the intercept(s) of each function above. If there are none shown in the table, write "none".

Function	Vertical Intercept(s)	Horizontal Intercept(s)
$f(x)$		
$g(x)$		
$h(x)$		
$j(x)$		

2. Identify all of the intercepts of each graph. Record these as ordered pairs. If there are none shown in the graph, write "none".

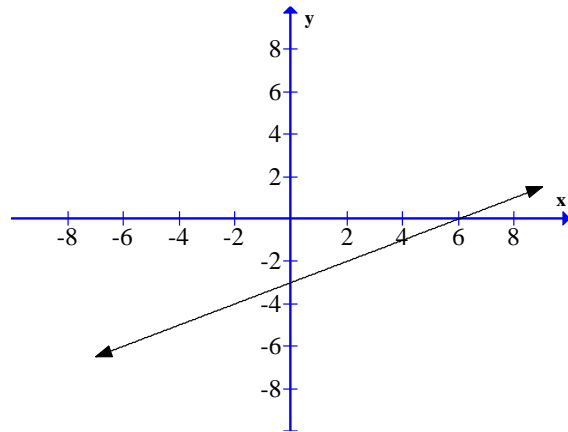
Graph A

vertical: _____ horizontal: _____



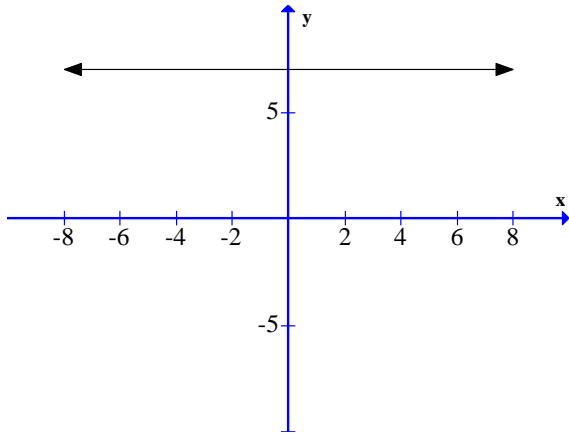
Graph B

vertical: _____ horizontal: _____



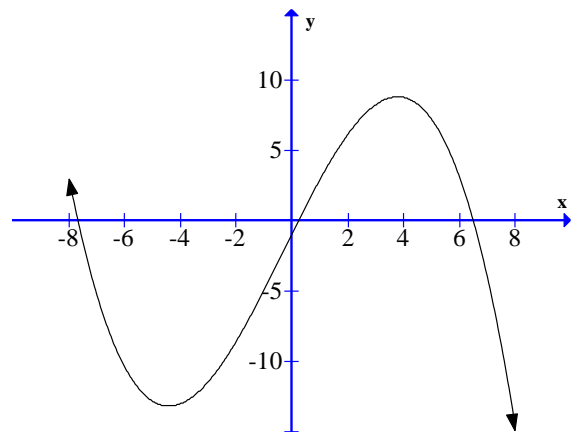
Graph C

vertical: _____ horizontal: _____



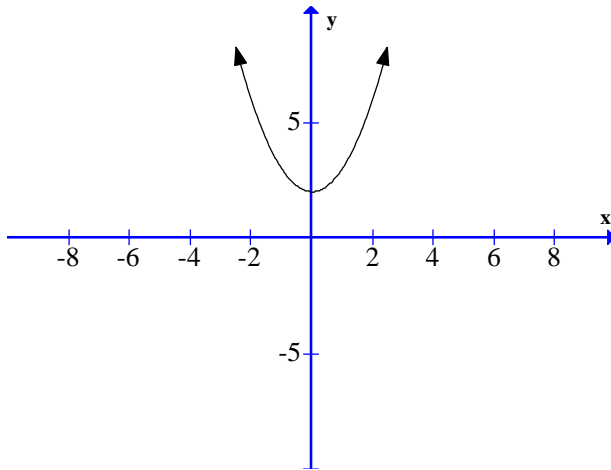
Graph D

vertical: _____ horizontal: _____



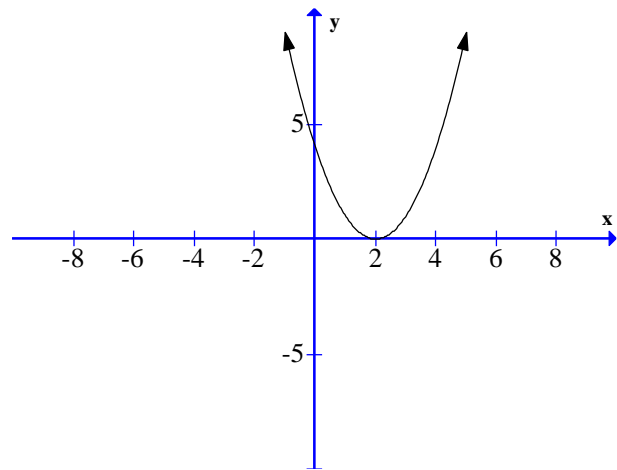
Graph E

vertical: _____ horizontal: _____



Graph F

vertical: _____ horizontal: _____



3. Can a function have more than one vertical intercept? Explain your answer.

4. **Circle the correct answer:** The ordered pair for a vertical intercept is $[(x,0)$ or $(0,y)]$.

5. **Circle the correct answer:** The ordered pair for a horizontal intercept is $[(x,0)$ or $(0,y)]$.

6. Use the information above to calculate the horizontal and vertical intercepts of the line with the equation $2x - 3y = 5$.
7. Explain how to find the horizontal intercept from an equation.
8. Explain how to find a vertical intercept from an equation.

TRIS 92: Working with Functions

Refer to your Day 17 homework. The work at the bottom of the page demonstrated how to turn the expression $48 + 0.37t$ into a function by setting it equal to L : $L(t) = 48 + 0.37t$.

1. Define the variables for this function.
2. Is this function linear? How do you know?
3. Identify and interpret the slope in the context of the situation.
4. Identify and interpret the vertical intercept in the context of the situation.
5. Find $L(29)$. Show your work. Interpret the meaning in the context of the situation.
6. Find t if $L(t) = 68$. Show your work. Interpret the meaning in the context of the situation.