Lecture Handout #02: Sep 1

Air Temperature Data

Temperature of air at different altitudes:

Height h (km)	0	1	2	3
Temp T (°C)	15	8	1	−6

What formula relates T and h?

Linear Data?

Some values of a function $g(x)$:

x	0	1	2	3
$g(x)$	−1	0	3	8

Is $g(x)$ linear?

Slope and Point-Slope Formulas

Given two points on a line, find the slope and a function $f(x)$ whose graph is the line:

	Points		Slope	Function $f(x)$
(a)	$(4,5)$	$(-2,-1)$	_____	_____
(b)	$(2,5)$	$(0,-1)$	_____	_____
(c)	$(2,0)$	$(-1,6)$	_____	_____
(d)	$(-1,1)$	$(3,3)$	_____	_____
(e)	$(-1,2)$	$(2,2)$	_____	_____
(f)	$(3,0)$	$(2,1)$	_____	_____
(g)	$(1,1)$	$(1,4)$	_____	_____

What do these lines all have in common?