NAME Key

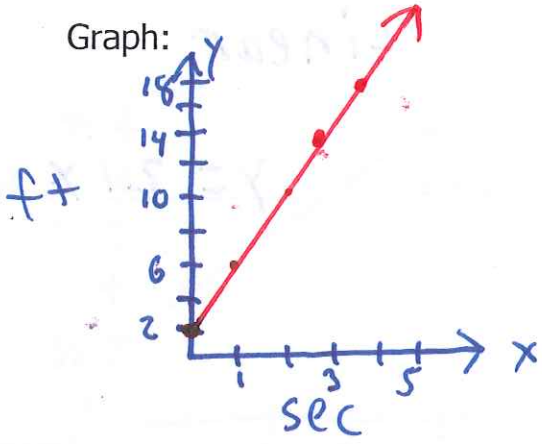
Linear Situations

Examples:

a) A model rocket is 2 ft above the ground. When shot off the rocket ascends at a rate of 4 ft per second.

Input: Time (sec)	0	1	2	3	4
Output: Distance (ft)	2	6	10	14	18

Graph:



Linear or Not????

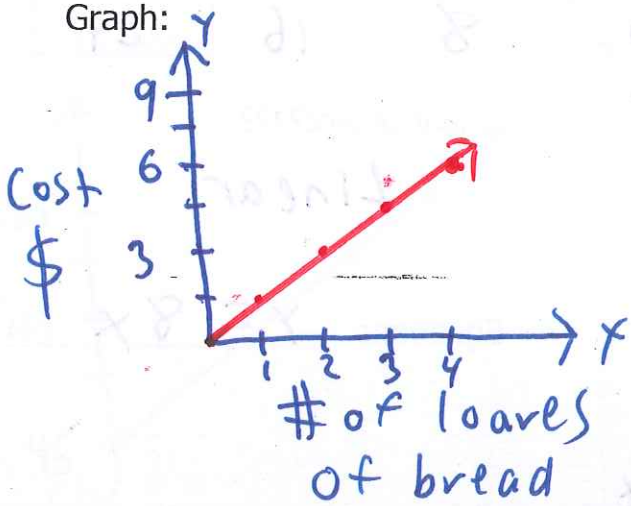
Linear

Equation: $y = 4x + 2$

b) Every loaf of bread costs $1.50.

Input: # of loaves	0	1	2	3	4
Output: Cost $	0	1.5	3	4.5	6

Graph:



Linear or Not????

Linear

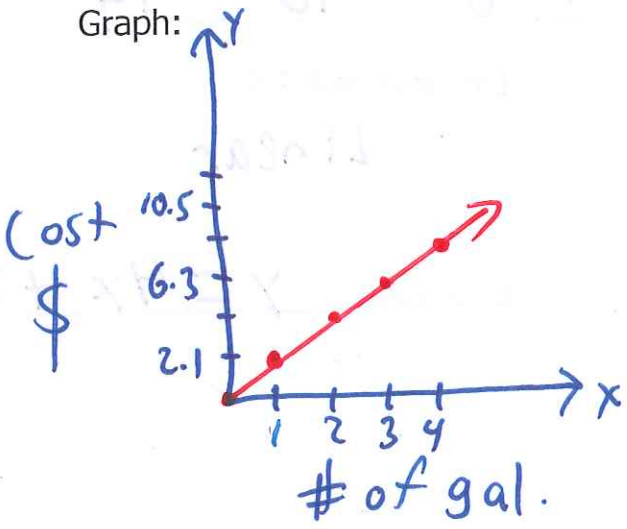
Equation: $y = 1.5x$

Now you try...

1. Gasoline costs $2.10 per gallon.

Input: # of gallons	0	1	2	3	4
Output: Cost $	0	2.1	4.2	6.3	8.4

Graph:



Linear or Not????

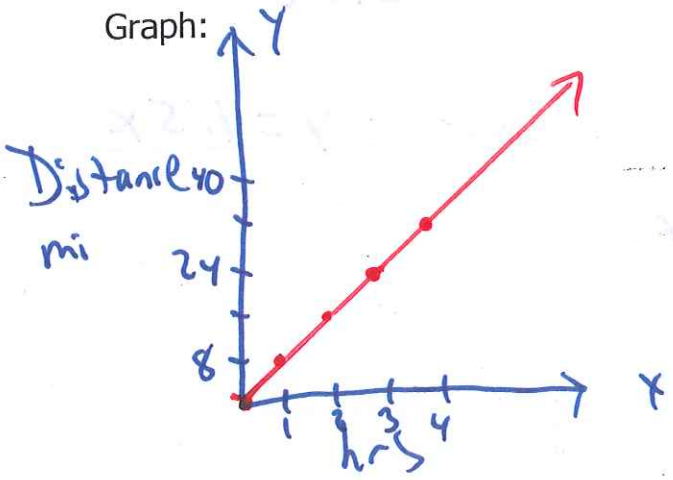
Linear

Equation: $y = 2.1x$

2. Drew can run 8 miles every hour.

Input: Time (hrs)	0	1	2	3	4
Output: Distance (mi)	0	8	16	24	32

Graph:



Linear or Not????

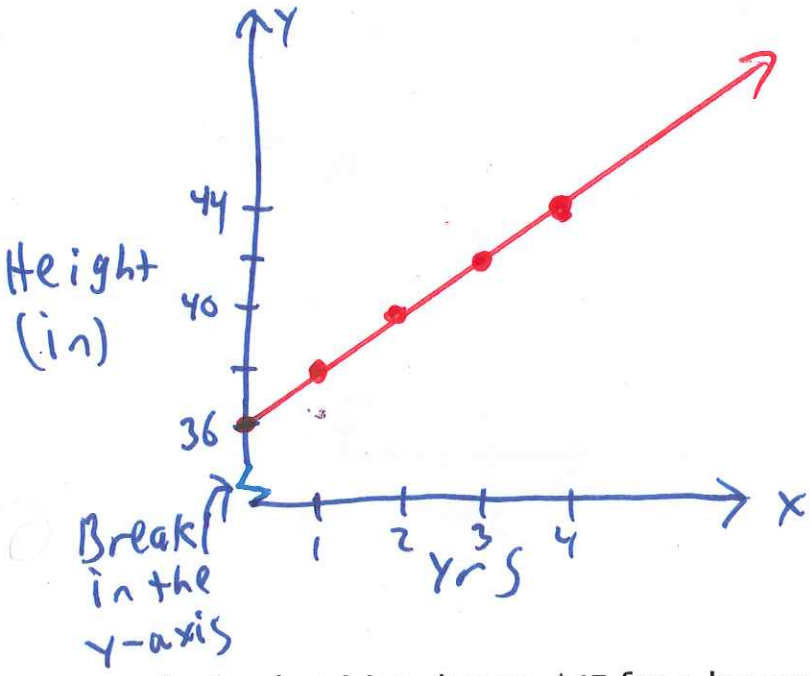
Linear

Equation: $y = 8x$

3. Claudia is 36 inches tall. Every year she grows 2 inches.

Input: Time (yrs)	0	1	2	3	4
Output: Height (in)	36	38	40	42	44

Graph:



Linear or Not????

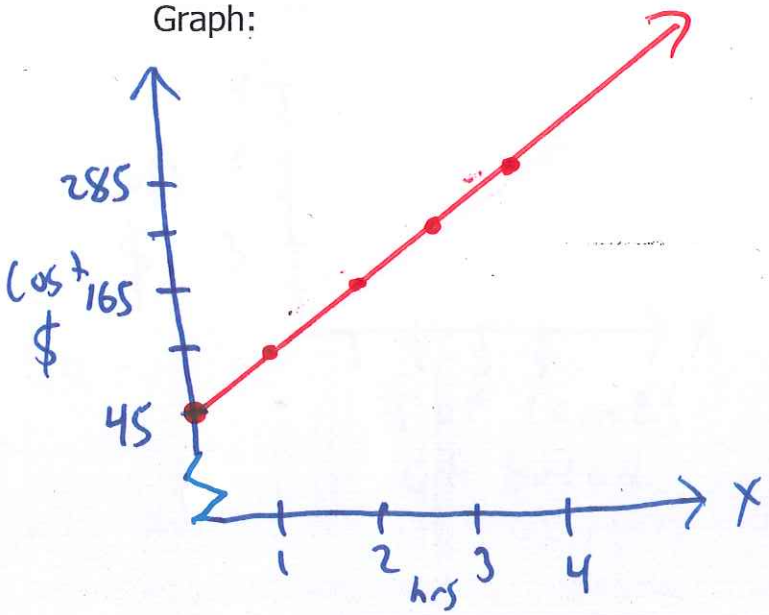
Linear

Equation: $y = 2x + 36$

4. An electrician charges $45 for a house call, plus $60 for each hour of work.

Input: Time (hrs)	0	1	2	3	4
Output: Cost $	45	105	165	225	285

Graph:



Linear or Not????

Linear

Equation: $y = 60x + 45$