Int 2 | **Notes 3-8 Qualitative Graphs** | **Unit 3**

Is the following relationship linear or not. Explain.

4.

x	y
4	1
5	4
6	10
7	22

+1, +1; +3, +6

$\frac{3}{1} \neq \frac{6}{1}$

Not Linear
No Croc

5.

x	y
8	9
9	12
10	15
11	18

+1, +1, +1; +3, +3, +3

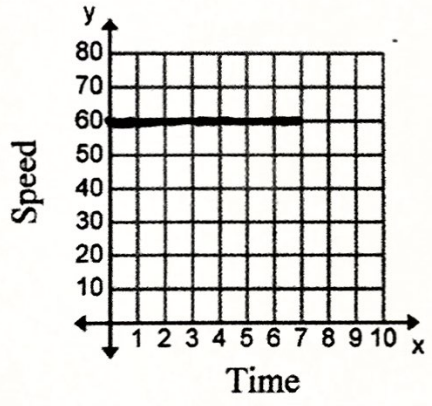
$\frac{3}{1} = \frac{3}{1} = \frac{3}{1}$

Linear
CROC @ 3

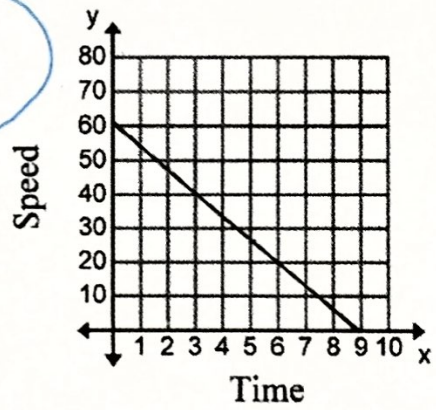
Indicate which graph matches the statement.

Ex. 1: A train pulls into a station and lets off its passengers.

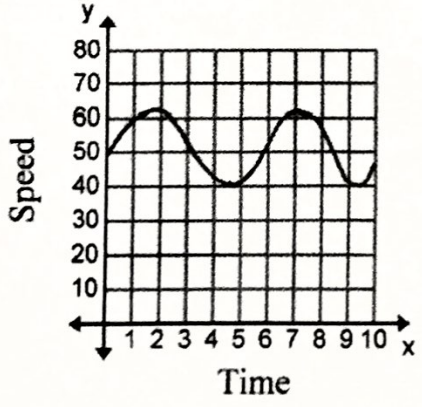
a)



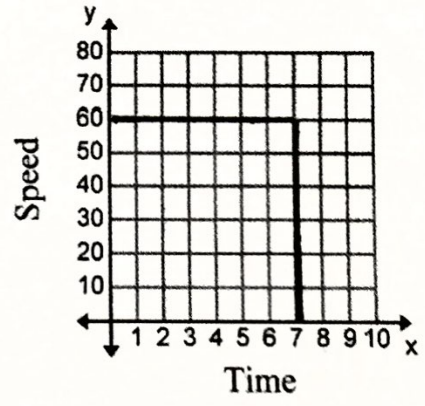
b)



c)



d)



Int 2 | **Notes 3-8** | **Unit 3**

Qualitative Graphs

To perform car maintenance, a mechanic charges for parts and for labor. After 2 hours in the shop, Terri's charge for car maintenance is $125. After 5 hours, the total charge is $260. Assume the relationship is linear.

a) Make a table to organize the information.

x (hours)	y $ charge	
0	35	-45
1	80	-45
2	125	
5	260	

b → 0

$\frac{260-125}{5-2} = \frac{135}{3}$

$45 per hour → m

* Make sure you work your table back to x=0

b) Write an equation for the situation.

$y = mx + b$

$y = 45x + 35$

b → y-int (when x=0)

m → slope → CROC

c) Interpret the slope.

mechanic charges $45 per hour

d) Interpret the y-intercept.

charges $35 for parts