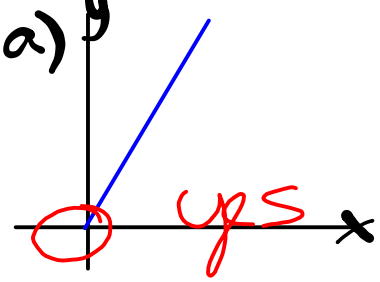
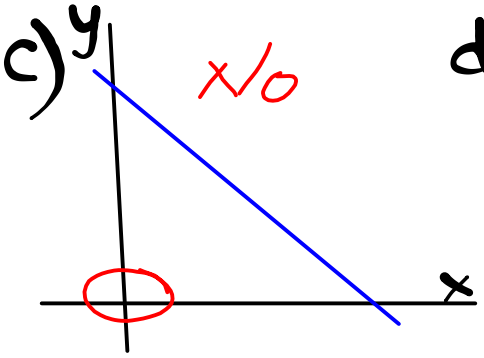
Are these situations directly proportional? (Yes/No and why)

a) 

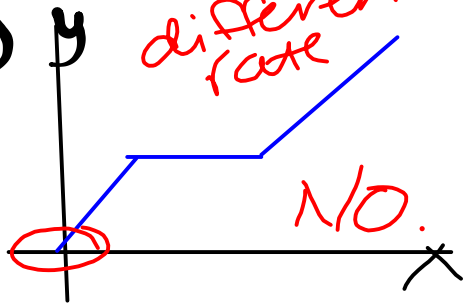
yes

b) 

NO.

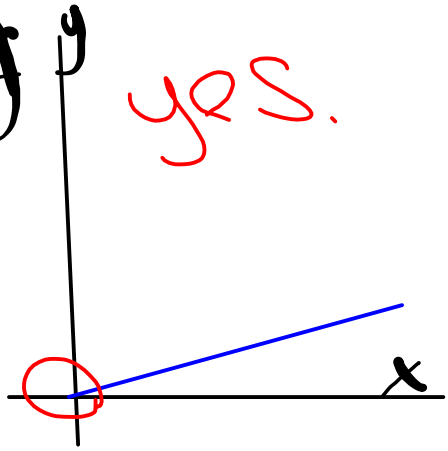
c) 

No

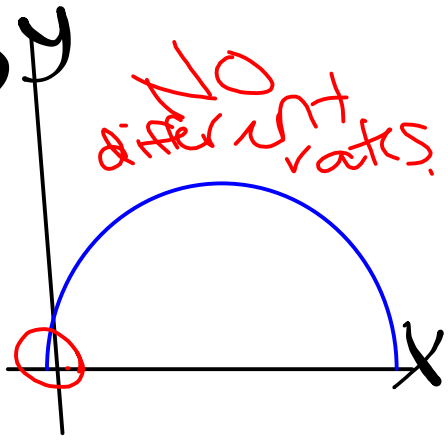
d) 

different rate

NO.

e) 

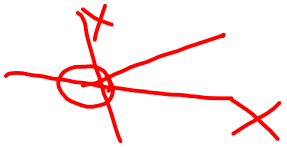
yes.

f) 

NO different rates.

Requirements

- starts at (0,0)



- has a constant rate (one straight line).

Inverse Proportionality

Ex: The grade 11 students organized the snowflake ball. During fundraising they make $2400. The amount must be shared between the Students who go to the dance.

X: number of students

y: amount of $ per person.

$$y = \frac{2400}{x}$$

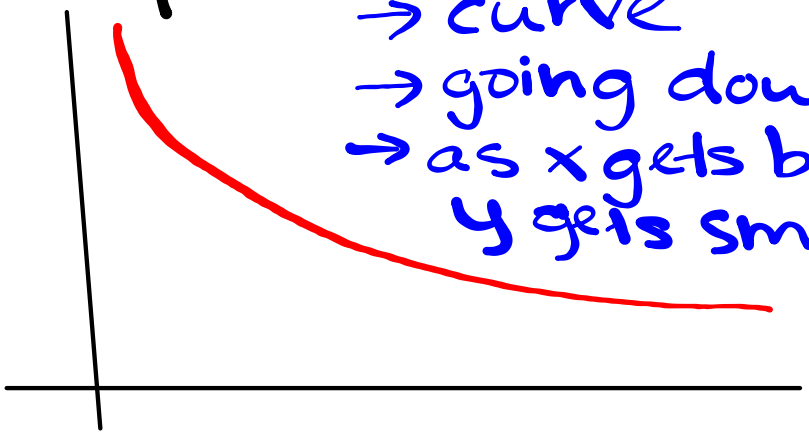
Table:

up

Students	50	60	100	120
$	48	40	24	20

down.

Graph



→ curve
→ going down.
→ as x gets bigger, y gets smaller.

Practice Question:
The employees of a grocery store won $5000 in a lottery that they must share.

a) What are the 2 variables?
x: employees
y: money shared

b) Make a table.

emp.	10	20	30	40
$	500	250	166.66	125

c) What is the rule?
$y = \frac{5000}{x}$

d) If 20 people participate, what is each person's share? 250

e) If each person got $200, how many people were there?

$\frac{200}{1} = \frac{5000}{x}$

cross multiply
$x = 25$ people.

Quiz Topics

- Inverse proportions
- direct proportions
- proportional word problems