

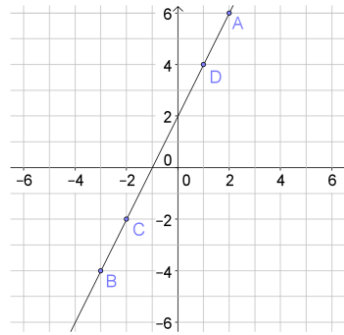
### 4.3 -B- Constant Rate of Change

Find the rate of changes:

a) Between A and D:

b) Between D and C:

c) Between C and A:



d) Between A and B:

1

### Property of ROC of a straight line:

- On a straight line the ROC is constant ( the same) no matter which 2 points we pick.
  - Where as on a curve the ROC changes (is not constant) along the curve.

- On a graph we can count the units:

$$\text{ROC} = \frac{\text{rise}}{\text{run}}$$

- Given 2 points  $A(x_1, y_1)$  and  $B(x_2, y_2)$ :

$$\text{ROC} = \frac{y_2 - y_1}{x_2 - x_1}$$

2

### Find the rate of Change for the Following

**Ex 1:** A tank initially contains 56 000 L of eggnog. The tank is leaking!  
After 5 hrs the tank has 45 000 L .



3

### Find the rate of Change for the Following

**Ex 2:** Jen earns \$220 for 20 hours of work. For 10 hours of work she earns \$120. What is her hourly rate?

	x	y
Hours	Pay	
10	120	↪
20	220	

4

### Find the value of c

**Ex 3:** The slope is 2  
 $G(0, -5)$  and  $B(c, 3)$

**Ex 4:** The slope is  $\frac{1}{2}$   
 $S(-1, 2)$  and  $T(c, 6)$

Practice:  
page 106 # 4-7



5

6