



**INTO
MATH**
LEARN IT FAST

GRADE 8 - LESSON 6

**A COORDINATE PLANE.
COORDINATE OF A POINT.
GRAPHS.
SLOPE OF A LINE.**

A COORDINATE PLANE

A coordinate plane is a two-dimensional number line .

On a plane, draw two perpendicular lines, Ox and Oy , that intersect at the initial point O .

These two lines are called the system of coordinates on a plane.

The number line Ox is called the **x-axis** and the number line Oy is called the **y-axis**.

The plane where the system is located is called a **coordinate plane**.

COORDINATE OF A POINT.

A coordinate plane is a two-dimensional number line .

Point A is on a coordinate plane.

Draw the lines through it, parallel to the x-axis and the y-axis respectively. The lines will cross the axes at points D and M, which are the x and the y coordinates of the point A respectively.

The values of x and y are called an **ordered pair of coordinates of a point**.

If a point is on the x-axis, its y coordinate is 0.

If a point is on the y-axis, its x coordinate is 0.

A COORDINATE PLANE

A coordinate plane is a two-dimensional number line .

The axes are dividing the plane into **4 quadrants**.

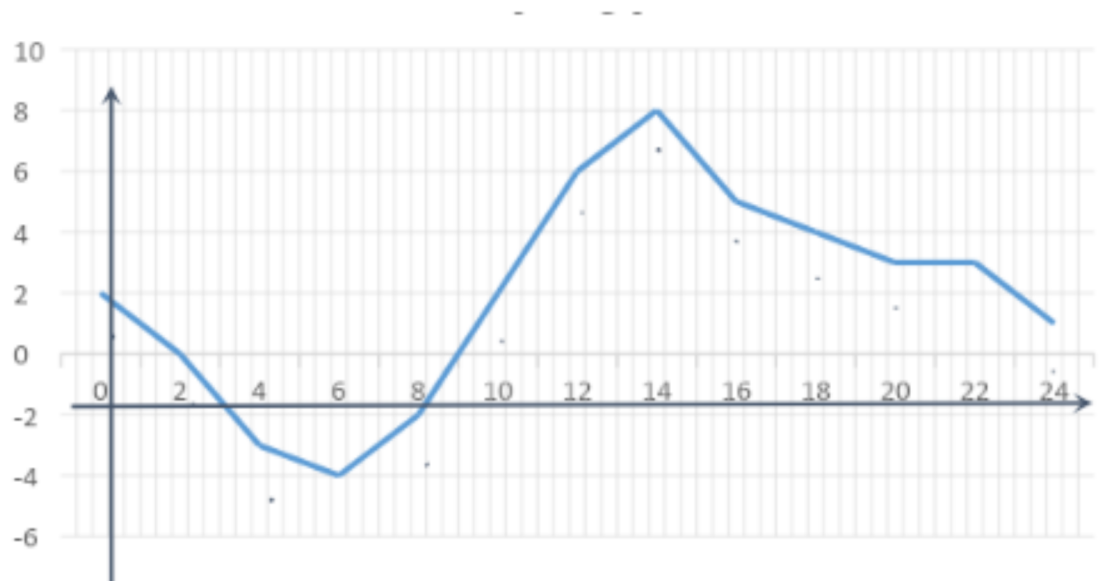
Memorize the numbers of the quarters and the signs of the axes in each quadrant.

GRAPHS

A relationship between different quantities can be represented on a coordinate plane.

The air temperature was measured for 24 hours and the results were recorded in the following table:

Time of day, hrs	0	2	4	6	8	10	12	14	16	18	20	22	24
Temperature, $^{\circ}\text{C}$	2	0	-3	-4	-2	2	6	8	5	4	3	3	1

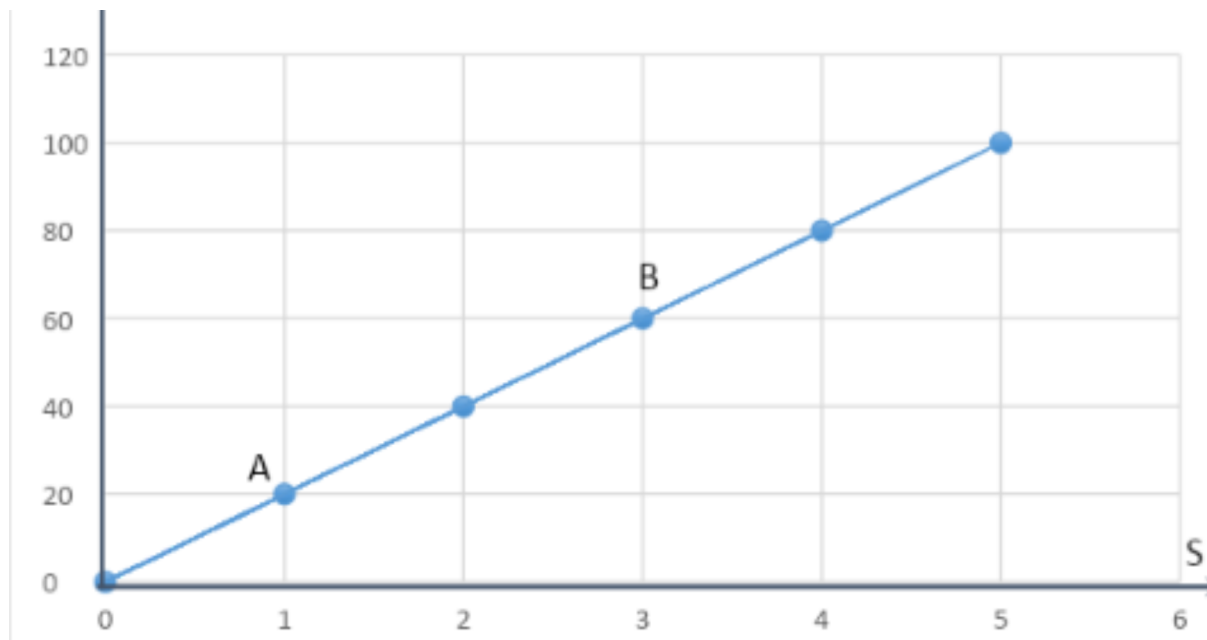


GRAPHS

A relationship between different quantities can be represented on a coordinate plane.

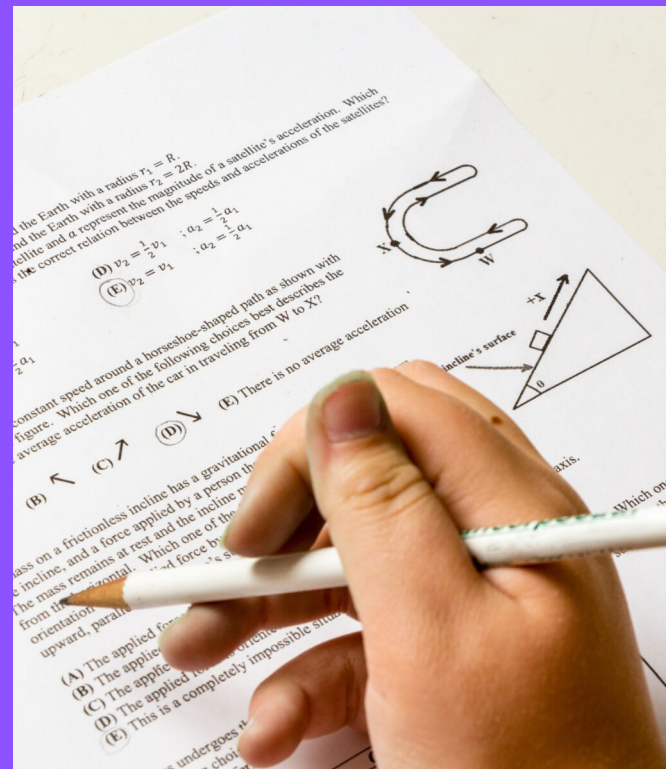
The bike was moving with a constant speed of 20 km/h. Graph the motion of the bike:

Time, hr	1	2	3	4	5
Distance, km	20	40	60	80	100



SLOPE OF A LINE

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$



**PLEASE CONTINUE TO
GRADE 8 LESSON 7!**

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you ROCK!

