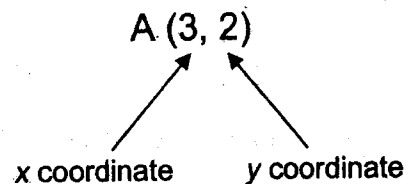
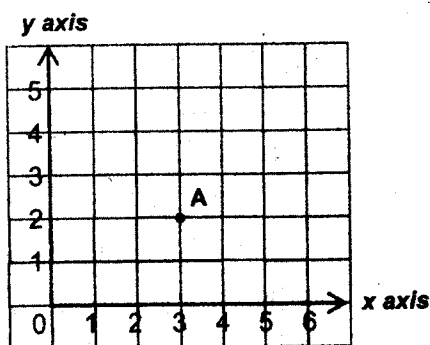
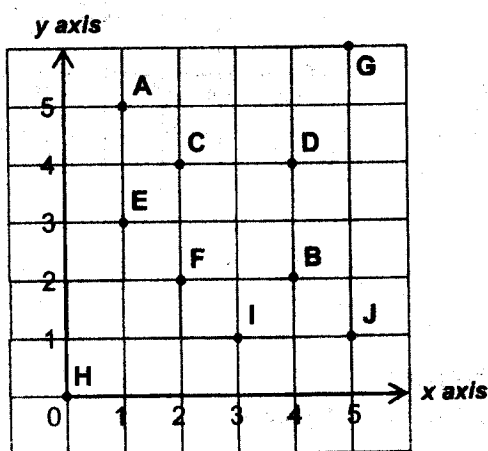


G8-31: Introduction to Coordinate Systems

The position of a point on a coordinate grid is identified by a pair of numbers in a bracket:

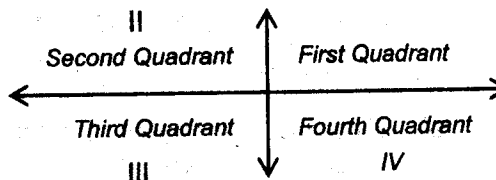


1. Fill in the coordinates for the given points:

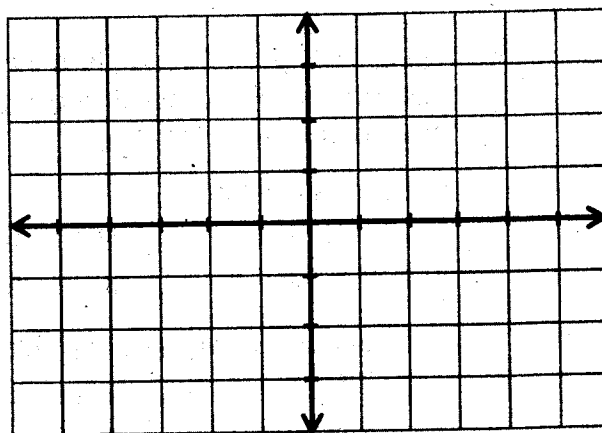


A (,) B (,)
C (,) D (,)
E (,) F (,)
G (,) H (,)
I (,) J (,)

A grid that has been extended to include negative integers is called a **Cartesian coordinate system**:



2. a) Identify and label the origin (0) and the x- and y-axes.
- b) Label the axes with positive and negative integers.
- c) Number the four quadrants (using I, II, III, IV).



1. In Figure 1, point A (2, 3) is in the first quadrant. Its x- and y-coordinates are both positive.

a) Plot and label:

B (3, 2) C (1, 5)

D (4, 1) E (2, 6)

b) Find the coordinates of points:

P (,) Q (,)

R (,) S (,)

2. In Figure 1, point F (-2, 3) is in the second quadrant. Its x-coordinate is negative and its y-coordinate is positive.

a) Plot and label:

G (-3, 2) H (-1, 5)

I (-4, 1) J (-5, 3)

b) Find the coordinates of points:

K (,) L (,)

M (,) N (,)

3. In Figure 2, point A (-2, -3) is in the third quadrant. Its x- and y- coordinates are both negative.

a) Plot and label:

B (-3, -2) C (-1, -5)

D (-4, -3) E (-5, -2)

b) Find the coordinates of points:

K (,) L (,)

M (,) N (,)

4. In Figure 2, point F (2, -3) is in the fourth quadrant. Its x-coordinate is positive and its y-coordinate is negative.

a) Plot and label:

G (3, -2) H (1, -5)

I (4, -1) J (5, -6)

b) Find the coordinates of points:

P (,) Q (,)

R (,) S (,)

Figure 1:

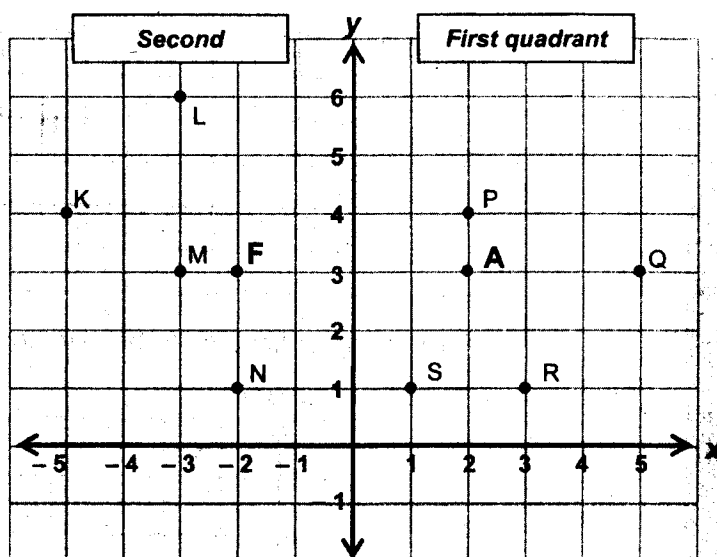
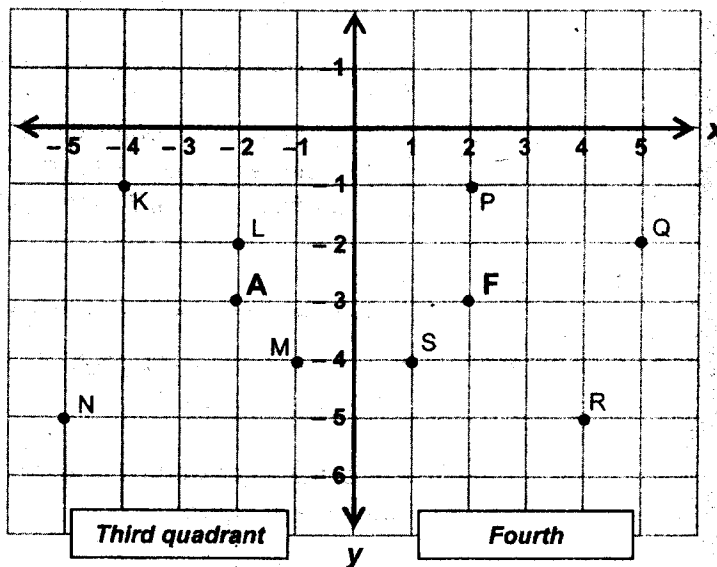


Figure 2:



5. In Figure 1, points B (2, 0) and C (-4, 0) are both on the x-axis. The y-coordinate of any point on the x-axis is zero.

a) Plot and label:

A (3, 0) M (-3, 0)

N (5, 0) O (-1, 0)

b) Find the coordinates of points:

P (,) Q (,)

R (,) S (,)

6. In Figure 1, points D (0, 2) and E (0, -3) are both on the y-axis. The x-coordinate of any point on the y-axis is zero.

a) Plot and label:

G (0, 1) H (0, -4)

b) Find the coordinates of points:

K (,) L (,)

T (,) U (,)

7. a) Locate and label the points on Figure 2:

A (3, 4) B (5, -2)

C (-3, -2) D (-4, 1)

E (3, 0) F (0, 2)

G (0, 3) H (-5, 0)

b) On Figure 2, find the coordinates of points:

P (,) Q (,)

R (,) S (,)

T (,) U (,)

V (,) W (,)

c) Use letters to complete the following blanks:

First quadrant points - _____

Second quadrant points - _____

Third quadrant points - _____

Fourth quadrant points - _____

Points on x-axis - _____

Points on y-axis - _____

Origin - _____

Figure 1

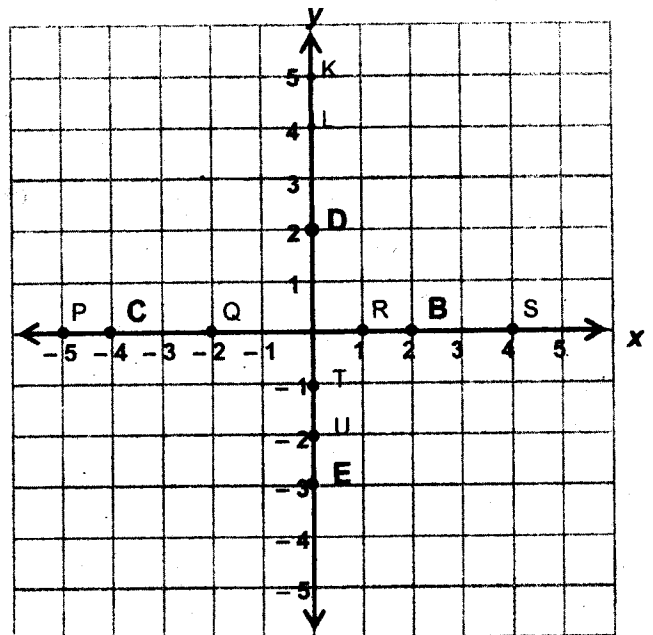


Figure 2

