

# Activity Worksheet

Challenging brain

Sub : Mathematics

Grade: IX

Date: .....

Name: .....

ID No.....

## Vocabulary Quiz

**Directions:** Match the vocabulary words on the left with definitions on the right by shading the circles given at the bottom.

(i) x-axis

(a) vertical line in Cartesian plane.

(ii) y-axis

(b) horizontal line in Cartesian plane.

(iii) x-coordinate of a point

(c) perpendicular distance of the point from the x-axis.

(iv) y-coordinate of a point

(d) perpendicular distance of a point from the y-axis.

(v) Origin

(e) each parts of the plane formed by two axes.

(vi) Quadrants

(f) point of intersection of the axes.

	(a)	(b)	(c)	(d)	(e)	(f)
(i)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(ii)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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(vi)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Let us Work Maths

This is a quick way to multiply number that differ by 2. It works best if the number in between can easily be squared mentally.

- To multiply 39 by 41, first mentally square the number in between the two: in this case, 40.

$$39 \times 41$$

$$40 \times 40 = 1600$$

- When you have squared the number, subtract 1 from the result to find the answer to the calculation.

$$1600 - 1 = 1599$$

Try to find why this trick work?

**Hint:** Use the identity  $(a - b)(a + b) = a^2 - b^2$