

# Properties of Objects and Their Transformation on the Plane

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**Abstract:** Every function has its properties relative to that of the mechanisms of a circle, since cycles repeat. Such that all equations factors so well within its definition, that clearly, every circle has a radius that is greater than zero. If the radius expands by any set of numbers, then it is undergoing transformation. Hence, every object under it expands at a certain ratio. To a point that it is quite natural for phenomena to repeat; given that it is within the area of its circumference. Although without events being the same. Functions tends to be in approximation with mathematical constants, merely for the periodicity of their behaviour- since it is cyclic under certain conditions. The centre of a black hole is a point; so much like that of a circle. Since therefore, objects alters the state of dimensions they occupy, so that relative to the point of reference: they either appear as paraboloids, ellipses, hyperbolas, or circles; depending on the context.

**Keywords:** Transformation, Objects, Hyperbolas

## I. INTRODUCTION

How are then, mathematical objects transformed in space? Numbers are not objects of any value we are not familiar with. For their generality in space and time defines every branch of mathematics and science. Such that every field exists because there's proof of what it claims. However, not every discipline outside empirical studies can reason with much sophistication on behalf of nature, such as the field of mathematics. While functions if circular therefore mean, that behaviourally, they repeat, as in to follow a particular fixed pattern; then suggests much about their eccentricity. If it is not there, then a perfect circle is likely, as a possible outcome, given that alternative outcomes are other objects such as ellipses, paraboloids, and hyperbolas. From different viewpoints- the object in question, is defined through relative objects, such that what happens to an object cannot be said to be happening independently, without the context. Often, it is thought the plane's section is only possible in higher dimensions; but such phenomena exists- even in lower dimensions. And given their value to the entirety of the existence of the plane itself; what state of validation do they hold, without any reference to it? Below is the examination of such objects as entities of space given their proof of relation to mathematical constants,

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As Justified by their existence; and their relativeness to each other, as phenomena with which shares common properties of the Cartesian coordinate system within which they exist. In space objects can transform given fundamentals which are by far, the properties of the plane. Here proof is given on how the parabola can result into mathematical constants, and how such numbers can be retained through an algebraic analysis of the conic function, and the hexagon, which is under investigation.

If  $\frac{y^2}{2} - \frac{x^2}{2} = 1$ , then it holds as follows such that  $\frac{y^2 - x^2}{2} = 1$

$$y^2 - x^2 = 2$$

$$y^2 = x^2 + 2$$

$$\therefore y = \sqrt{x^2 + 2}$$

And it can be concluded as follows:  $\frac{(\sqrt{x^2+2})^2}{2} - \frac{x^2}{2} = 1$

$$\frac{x^2 + 2}{2} - \frac{x^2}{2} = 1$$

$$\frac{x^2 - x^2 + 2}{2} = 1$$

$$1 = 1$$

$$1 - 1 = 0$$

$$\therefore 0 = 0$$

Thus, from logic it holds that it can be reasoned further, and justified as follows such that it can be stated that since:

$2\phi - \sqrt{5} = 1$ , then the following holds:  $\frac{y^2}{2} - \frac{x^2}{2} = 2\phi - \sqrt{5}$

$$\frac{y^2 - x^2}{2} = 2\phi - \sqrt{5}$$

$$y^2 - x^2 = 2(2\phi - \sqrt{5})$$

$$y^2 - x^2 = 4\phi - 2\sqrt{5}$$

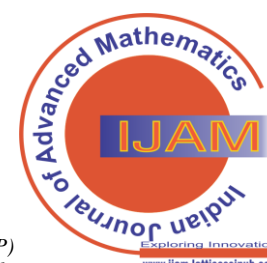
$$\therefore 2 = 4\phi - 2\sqrt{5}$$

So that while the above is true, then it also follows that

$$2x - 2y + 1 = 0$$

$$2x - 2y = -1$$

$$\frac{2(x - y)}{x - y} = \frac{-1}{x - y}$$



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$$\therefore 2 = -\frac{1}{x-y}$$

In such a way that when it is evaluated on one-to-one basis; then what follows cannot be otherwise, or proven false, since it holds:  $4\phi - \sqrt{5} = -\frac{1}{x-y}$

$$(4\phi - \sqrt{5})(x-y) = -1$$

$$2(x-y) = -1$$

$$2(x-y) = e^{i\pi}$$

$$\therefore e = \sqrt[2]{2(x-y)}$$

Such that from the derivation of Euler's identity, the diameter is retained as follows:  $\frac{2(x-y)}{x-y} = \frac{e^{i\pi}}{x-y}$

$$\therefore 2 = \frac{e^{i\pi}}{x-y}$$

Hence the following is true:  $4\phi - 2\sqrt{5} = \frac{e^{i\pi}}{x-y}$

$$(4\phi - 2\sqrt{5})(x-y) = e^{i\pi}$$

$$x-y = \frac{e^{i\pi}}{4\phi - 2\sqrt{5}}$$

$$x-y = \frac{e^{i\pi}}{2}$$

$$\therefore x-y = -\frac{1}{2} \text{ And from what holds: } \therefore x = -\frac{1}{2} + y$$

So that when such a value is substituted into the above equation, then it becomes clear that the Euler's identity is retainable from simple rules of geometry and algebra; and thus, holds true, as follows:  $2(x-y) = e^{i\pi}$

$$2\left(-\frac{1}{2}\right) = e^{i\pi}$$

$$\therefore -1 = e^{i\pi}$$

And it can be further stated then that  $2x - 2y + 1 = 0$

$$1 = -2x + 2y$$

$$1 = -1(2x - 2y)$$

$$\frac{1}{2x-2y} = \frac{i^2(2x-2y)}{2x-2y}$$

$$i^2 = \frac{1}{2x-2y}$$

$$\therefore i = \sqrt{\frac{1}{2x-2y}}$$

So therefore, then it is logical and true that the following holds:  $\frac{\log_e 2(x-y)}{i} = \pi$

And in general,  $\sqrt{x^2 + y^2}$  is a cone with three-dimensional properties. However, when  $\sqrt{x^2 + y^2} = 1$ , therefore it has transformed to become a circle on a two-dimensional plane. But as the perspective shifts in mathematics; an object is easily transformed from one-dimensional projection to two, and even three-dimensional

projections in space. This means that space is a set of coordinates, and when an object is viewed from a one-dimensional perspective, or a two-dimensional perspective; it may either, appear as a linear function or a non-linear function. Furthermore, when  $\sqrt{x^2 + y^2}$  divides by certain values in which  $\alpha \neq 0$  and where  $-\infty < \alpha < \infty$ , then such an object is said to be undergoing transformation, as it is transformed into a flat surface in three-dimensional space which is a plane.

And that is represented or stated as follows:  $\frac{\sqrt{x^2+y^2}}{\alpha}$

But when a cone divides  $x^2 - y^2$  then space has a flip into its composition, and a perfect circle into the centre of the plane is obtained when the said expression is dividing the cone. And when that cone is multiplied by  $\beta$  - values where such- does not equal zero, but is found to be either less than, or greater than that value as follows:

$\frac{x^2-y^2}{\beta\sqrt{x^2+y^2}}$ , then warped space is flattened, that is; now transformed into a plane as the values of  $\beta$  either increases or decreases.

However, if the following holds:  $y^2 - x^2 = 2$

$$y^2 - x^2 - 2 = 0$$

$$-2 = -y^2 + x^2$$

$$\therefore x^2 - y^2 = -2$$

Then space results into a different outcome as the hole at the centre of the plane is transformed into one which has conic properties. And therefore, the result holds as follows:

$$\frac{-2}{\beta\sqrt{x^2+y^2}}$$

## II. CONCLUSION

From all the above it is understood that objects of any mathematical value in space transforms. And when such objects has done so, it can only be said that they exist within certain intervals as specified with respect to the conditions as they hold. So that on one-to-one correspondence, objects do not only assume common properties which are inherent in space, but also share certain attributes which exist because of their relation. Even on complex grounds where the coordinate system extends beyond lower dimensions. Still, the rules which guides the system do not seem to break, simply, because there is a shift in perspective. And thus, this proves the validity of the system itself in which the reality of the cosmos is resting upon. And while it may be true that certain objects which are not known are not yet proven to exist; but at the least at this point in time, we can rest assured that blackholes do exist. And by far- such is the mathematics behind the transformation of objects in space. And if all is validated above, then it cannot be deniable that transformation of the golden ratio, that is, from being one which is the radius of the unit circle; is the same as stating that such a value when multiplied by a certain variable which is equal to two, yields two, or equals two, as well.



The result, explicitly, states that phi is now doubled, and the vertical axis of the function is such that that it is equal to the diameter of a circle. And for every object whose properties are valued to be equal to one, is simplified to its lowest factors such that it is defined accordingly, to the proportions of a unit circle.

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