Vocabulary: Circles



**Vocabulary**

* Circle – the set of all points the same distance from a given point, called the center of the circle.
* For example, all (*x*, *y*) points on the circle shown to the right are *r* units from the center (2, 1).
* Conic section – a curve formed by the intersection of a plane, and one or two right circular cones.

**Circle**

* For example, the intersection of the plane and the cone shown to the right is a circle.
* Distance formula – a formula that can be used to find the distance, *d*, between two points with coordinates (*x*1, *y*1) and (*x*2, *y*2).
	+ The distance formula is *d* = .
* Pythagorean Theorem – a theorem stating that, for any right triangle, *a*2 + *b*2 = *c*2, where *a* and *b* are the lengths of the legs of the triangle and *c* is the length of the hypotenuse.

***a***

***c***

***b***

* Radius – a line segment with one endpoint at the center of a circle and the other endpoint on the circle.
* The radius, *r*, of the circle shown above has a length of 3 units: *r* = 3.
* Standard form of the equation of a circle – the equation representing the set of points in the coordinate plane that are all the same distance, *r*, from a given point (*h*, *k*).
* The standard form of the equation of a circle is (*x* – *h*)2+ (*y – k*)2 = *r*2.
* For example, a circle with center (2, 1) and a radius of 3 units has the equation
(*x* – 2)2 + (*y* – 1)2 = 32.