

Code taken from assignment.py, circleXcircle():

```
circleXcircle(shapeA,shapeB):  
    return ( math.sqrt(sqr(shapeB.x() - shapeA.x()) + sqr(shapeB.y() - shapeA.y())) \  
            <= shapeA.getHalfWidth() + shapeB.getHalfWidth() )
```

The circles A and B interact when the distance between their centers,

$$\sqrt{(x_B - x_A)^2 + (y_B - y_A)^2}$$

is less than the sum of their radii,  $R_A + R_B$ .