$$a = f(x, y, R, s, d) = \frac{2y^2R - (R-x)\Delta}{2\big(y^2 + (R-x)^2\big)}$$

$$\pm \frac{y\Big[4\big(y^2R^2 - R(R-x)\Delta + y^2(s^2-R^2) + (s^2-R^2)(R-x)^2\big) - \Delta^2\Big]^{\frac{1}{2}}}{2\big(y^2 + (R-x)^2\big)}$$

Where $\Delta = x^2 + y^2 + s^2 - d^2 - R^2$.