```
Simplify[(3 * ((((1 / 2) * (c ^ 2)) / G) - (1 - (((c - c * (((c / CBRWavelength) / ((c ^ 3 / (16 * PI * G)) /
                        (4 / 3 * PI * ((((3 / (8 * rho * PI * G)) ^ (1 / 2)) * c) ^ 3) * rho))) ^ 2)) /
                    (1 + (((c / CBRWavelength) / ((c ^ 3 / (16 * PI * G)) /
                            (4 / 3 * PI * ((((3 / (8 * rho * PI * G)) ^ (1 / 2)) * c) ^ 3) * rho))) ^ 2))) ^ 2) /
                c ^ 2) ^ (1 / 2) * (((1 / 2) * (c ^ 2)) / G)) / (4 * PI * rho)) ^ (1 / 2) -
        G * ((2 * (4 / 3 * PI * ((((3 / (8 * rho * PI * G)) ^ (1 / 2)) * c) ^ 3) * rho)) / (c ^ 2))]
```

$$\frac{1}{2}\sqrt{\frac{3}{2}}\left(-c\sqrt{\frac{1}{G\,PI\,rho}}+\sqrt{\frac{c^2\left(1-4\sqrt{6}\sqrt{\frac{c^2\,CBRWavelength^2\,G\,PI\,rho}{(24\,c^2\,PI+CBRWavelength^2\,G\,rho)^2}}\right)}{G\,PI\,rho}}\right)$$