$$R := solve\left(-\frac{c}{2\cdot r\cdot g}\cdot x^2+\frac{1}{g}\cdot x+1-\frac{1}{g}+\frac{c}{2\cdot r\cdot g}=0, x\right)$$

$$R := \frac{r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}}{c}, -\frac{-r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}}{c} \tag{1}$$

$$r1 := R[1]$$

$$r1 := \frac{r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}}{c} \tag{2}$$

$$\frac{1}{r1}\cdot int\left(-\frac{c}{2\cdot r\cdot g}\cdot x^2+\frac{1}{g}\cdot x+1-\frac{1}{g}+\frac{c}{2\cdot r\cdot g}, x=0..r1\right)$$

$$\frac{1}{r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}}\left(c\left(-\frac{\left(r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}\right)^3}{6\,c^2\,r\,g}+\frac{\left(r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}\right)^2}{2\,g\,c^2}+\frac{r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}}{c}-\frac{r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}}{g\,c}+\frac{r+\sqrt{2\,c\,g\,r+c^2-2\,c\,r+r^2}}{2\,r\,g}\right)\right) \tag{3}$$

$$simplify(\%)$$

$$\frac{r\sqrt{c^2+2\,r\,(g-1)\,c+r^2}+r^2+4\,r\,(g-1)\,c+2\,c^2}{6\,c\,g\,r} \tag{4}$$