

(%i1) eq1: r1 + r2 = rn;

(%o1) $r2 + r1 = rn$

(%i2) eq2: r1 = r2 * rl / (r2 + rl);

(%o2) $r1 = \frac{r2 rl}{rl + r2}$

(%i3) solve([eq1, eq2], [r1, r2]);

(%o3)
$$\left[\left[r1 = -\frac{\sqrt{rn^2 + 4rl^2} - rn - 2rl}{2}, r2 = -\frac{rl \sqrt{rn^2 + 4rl^2} - rl rn - 2rl^2}{\sqrt{rn^2 + 4rl^2} - rn} \right], \left[r1 = \frac{\sqrt{rn^2 + 4rl^2} + rn + 2rl}{2}, r2 = -\frac{rl \sqrt{rn^2 + 4rl^2} + rl rn + 2rl^2}{\sqrt{rn^2 + 4rl^2} + rn} \right] \right]$$

(%i4) %o3, rn=100, rl=14.4;

(%o4) $[[r1 = 12.3677023378748, r2 = 87.63229766212527], [r1 = 116.4322976621252, r2 = -16.43229766212521]]$

(%i5) %o4[1];

(%o5) $[r1 = 12.3677023378748, r2 = 87.63229766212527]$