Motivated by searching for positive radially symmetric solutions in a fixed exterior domain in $\mathbb{R}^N$ for partial differential equations involving the curvature operator, we deal with the asymptotic and boundary value problems on the half-line for equations with the Euclidean mean curvature operator

$$ \left( a(t) \frac{x'}{\sqrt{1 + x'^2}} \right)' + b(t)F(x) = 0, $$

and with the Minkowski mean curvature operator

$$ \left( a(t) \frac{x'}{\sqrt{1 - x'^2}} \right)' + b(t)F(x) = 0, $$

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