74. The value 0.368 comes from rounding off e^{-1}. We will use e^{-1} in our solution. The speed of the rocket v as a function of the instantaneous rocket mass M' is given by $v = v_{\text{rel}} \ln(M/M')$ (Eq. 9-43 with $v_i = 0$). Thus, when $M' = e^{-1} M$, the speed of the fuel as measured by observers in the initial reference frame (defined when the rocket was at rest with $M' = M$) is

$$v_{\text{fuel}} = v - v_{\text{rel}} = v_{\text{rel}} \left(\ln \frac{M}{M'} - 1 \right) = v(\ln\left(\frac{1}{e^{-1}} \right) - 1) = 0 \ .$$