

Homework: Shockwaves and Wave Solutions

8.1, 8.3, 8.6

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8.1

?@fig-annotated-qk shows an annotated flow-density curve with the following: (a) $v_f = 115$ kph; (b) $k_j = 135$ v/km; (c) $q_m = 2100$ vph, $k_m = 25$ v/km, $v_m = 84$ kph; (d) $q_A = 1400$ vph, $k_A = 12$ v/km, $v_A = 116.6666667$ kph; (e) $q_B = 740$ vph, $k_B = 100$ v/km, $v_B = 7.4$ kph; (f) $w_f = 115$ kph, $w_j = -21$ kph, $w_m = 0$ kph, $w_a = 115$ kph, $w_B = -21$ kph; (g) $U_{AB} = -7.5$ kph.

8.3

8.6