

40. We use the equation of continuity and denote the depth of the river as h . Then,

$$(8.2\text{ m})(3.4\text{ m})(2.3\text{ m/s}) + (6.8\text{ m})(3.2\text{ m})(2.6\text{ m/s}) = h(10.5\text{ m})(2.9\text{ m/s})$$

which leads to $h = 4.0\text{ m}$.