

Try  $y = 0.6$ ;  $Q = \left(\frac{1}{0.013}\right)(0.9 + 0.72)\left(\frac{0.9 + 0.72}{4.18}\right)^{2/3} (0.002)^{1/2} = 2.96 \text{ m}^3/\text{s}$

since  $2.96 \approx 3.0$ , the assumed value for  $y$  is okay.

Therefore, use  $y = 0.60 \text{ m}$  and use continuity to find the velocity ( $V = Q/A$ )

$$V = 3.0 / (0.9 + 0.72) = 1.85 \text{ m/s}$$

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