**33.58 The velocity pressure of water flowing in a pipe is measured as $0.25psi$. What is the velocity of the water?**

A. $4\frac{ft}{s}$

B. $6\frac{ft}{s}$

C. $16\frac{ft}{s}$

D. $37\frac{ft}{s}$

Use only the term for the velocity pressure from the Bernoulli Equation. Change the units to $ft$ by multiplying by the rule of thumb conversion factor for water, $2.31\frac{ft}{psi}$. Solve for the velocity.

$$p_v = \gamma h_v$$

$$h_v = 0.25psi\left(2.31\frac{ft}{psi}\right) = 0.578ft$$

$$h_v = \frac{v^2}{2g}$$

$$v = \sqrt{2gh_v} = \sqrt{2\left(32.2\frac{ft}{s^2}\right)(0.578ft)} = 6.1\frac{ft}{s}$$

**Answer B**