

1. Write down the Darcy equation in horizontal direction and describe the terms; express the condition(s) upon the velocity becomes zero.
2. How can we generalize the Darcy eq. to two phase flow?
3. What is the difference between a real gas and an ideal gas?
4. In terms of the number of moles/mass of gasoline you pay for, does it matter at all to fill up the gas tank of the car in 100°F environment or 32°F ? Why? Would you prefer fast pumping or slow one?