## Essentials of MOSFETs: Lecture 1.3: Analog / RF Circuits

## **Short Problem**

Mark Lundstrom Purdue University, Fall 2018

1) A MOSFET operating in the saturation region is described by

$$I_D = 0.5(V_{GS} - 0.25)^2 \text{ mA}$$

What is the small signal transconductance at  $V_{\rm GS}$  = 1.0 V.