

**12. Incorrect. The answer is true.** The monopolist will optimize where  $(1-t_{\pi})(MR - MC) = 0$ . This is mathematically equivalent to  $(MR - MC) = 0$ , which is the same as the no tax case. Thus, if taxes are a percent of economic profits you maximize after tax profits by maximizing before tax profits as in the above case. Gross profits then will be the same but net profits will be gross profits minus the tax collected  $= (1-t_{\pi})(TR - TC)$ . Only if the tax rate were greater than 100% or  $t_{\pi} > 1$  would production vary from the no tax case. Then, the monopolist would not produce at all because after tax profits  $(1-t_{\pi})(TR - TC) < 0$ .