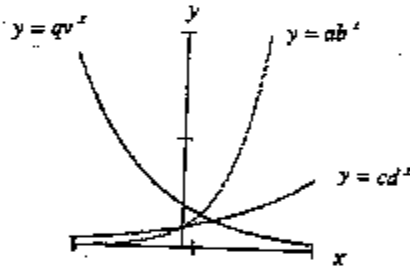


- 1.) (2 pts each) True / False--Circle your choice. Circle T only if the statement is always true.
[No explanation necessary.]

- (a) $\ln(AB) = (\ln A)(\ln B)$ T F
- (b) $\ln e^{2t-1} = 2t-1$ T F
- (c) $\sin(3a) = 3\sin(a)$ T F
- (d) As $x \rightarrow \infty$, x^{100} dominates 1.001^x T F
- (e) $\log(10A) = \log A + 1$ ($A > 0$) T F
- (f) A 5th degree polynomial must have at least one real zero. T F

- 2.) (5 pts--No explanation necessary.) The graphs of three functions are given in the figure below.



Complete each of the statements below by using the symbols $>$, $<$, or $=$.

$$a \underline{<} q \quad a \underline{=} c \quad b \underline{>} d \quad d \underline{>} v$$

Which, if any, of the parameters a, b, c, d, q, v are greater than zero?

all