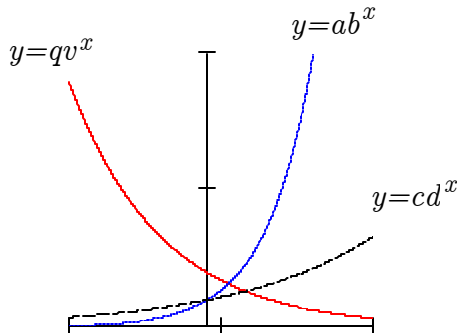


- 1.) (2 pts each) **True / False**--Circle your choice. Circle **T** only if the statement is always true.
[No explanation necessary.]

- | | | | |
|-----|---|----------|----------|
| (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 <i>fi</i> \neq , x^{100} dominates 1.001^x | T | F |
| (e) | $\log(10A) = \log A + 1$ ($A > 0$) | T | F |
| (f) | A 5 th 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.



[Note: On the original exam, these functions were labeled.]

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

$$a \text{ ____ } q$$

$$a \text{ ____ } c$$

$$b \text{ ____ } d$$

$$d \text{ ____ } v$$

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