Moving Up and Down Bloom's Taxonomy

Sample Problems

1. Explain how a potassium atom (K) is different from a potassium ion (K$^+$).

2. A motorcycle patrolman starts from rest at point *A* two seconds after a car, speeding at the constant rate of 120 km/h, passes point *A*. If the patrolman accelerates at the rate of 6 m/s^2 until he reaches his maximum permissible speed of 150 km/h, which he maintains, calculate the distance x from point *A* to the point where he overtakes the car.

3. List the kinds of energy conversions involved in:
   • Operating a calculator
   • Propelling an automobile
   • Using your arm to turn a page in a book

4. Describe how the ideas of Lamarck and Darwin are similar and how they differ.

5. What are the Eigenvalues of the following matrix?

$$\begin{bmatrix} 0 & 1 \\ -1 & 0 \end{bmatrix}$$

6. Suggest an explanation for observations that animals and plants in India are almost completely different from the species found in nearby Southeast Asia.