Transmission Radiography and Tomography Questions

Read the handout entitled "Transmission Radiography and Tomography: A Simplified Overview" and then answer the following questions.

1. Given $T_{kj} = 0.42$, what does this value mean?

2. What is accomplished in the matrix multiply when multiplying an object vector by the kth row of T?

3. Explain how you change the radiographic operator when changing from one view to many.

4. Why do we use pixel values b_k where b_k is defined as

$$b_k \equiv -\alpha \ln \left(\frac{p_k}{p_0} \right)$$

instead of the expected photon count p_k?