

$$2(a) \% \text{ abundance} = 100 - 93.3 = 6.7\%$$

$$(b) \text{ Ave. Atomic Mass} = (\text{Atomic Mass K-39})(\%) + (\text{Atomic Mass K-41})(\%)$$

$$= (38.96)(0.933) + (40.96)(0.067)$$

$$= 36.3(4) + 2.7(4)$$

$$= \boxed{39.1 \mu}$$

$$3(a) \text{ Ave. Atomic Mass Chlorine} = 35.45 \mu$$

$$(b) \text{ Ave. Atomic Mass} = (\text{Cl-35})(\%) + (\text{Cl-37})(\%)$$

$$35.45 \mu = (34.97 \mu)(x) + (36.97)(1-x)$$

$$35.45 \mu = 34.97x + 36.97 - 36.97x$$

$$35.45 - 36.97 = 34.97x - 36.97x$$

$$\frac{-1.52}{-2.00} = \frac{-2.00x}{-2.00}$$

$$0.760 = x$$

$$\% \text{ abundance} = \boxed{76.0\%} \text{ Cl-35}$$

$$100 - 76\% = \boxed{24.0\%} \text{ Cl-37}$$