Question 1

1. This is not a valid interpretation of the confidence interval.
2. This is indicative of a higher confidence level (e.g., perhaps 99% instead of 95%).
3. The new confidence interval would be narrower (e.g., perhaps (1.48, 1.81)).

Question 2

1. Rounding to the nearest tenth, we get: (38.9%, 45.1%).
2. Rounding to the nearest tenth, we get: (3.3, 5.5).

Question 3

1. Rounding to the nearest tenth, we get (-9.4, 123.0).
2. We get approximately (14, 122).
3. The bootstrapping confidence interval is more reasonable.

Question 4

1. Conducting a hypothesis test using the normal distribution, we find a (two-sided) p-value of about 0.146. The one-sided test would have yielded a p-value of about 0.073.
2. We find a two-sided p-value of about 0.349, or a one-sided p-value of about 0.174 (using the t distribution, normal gives about 0.346).

Question 5

1. Average tuition of public schools is about 26,000. Average tuition of private schools is about 40,900.
2. The p-value of the two-sided hypothesis test is 0.0003.
3. The effect size is about 4,600. Average cost after aid of public schools is about 36,200. Average cost after aid of private schools is about 31,600.
4. This assumption is not well justified.