



Name _____

Teacher/Hour _____

SOLO

The Sorites of Lewis Carroll

Lewis Carroll, author of *Alice in Wonderland*, was a great lover of logic and nonsense. He wrote several books about symbolic logic in which were featured what are known as *Sorites* (se-RYE-teez) - simple logical puzzles in which an overall conclusion (which may or may not have any sensible meaning) was to be derived. For example, the set of statements

- (1) *Babies are illogical;*
- (2) *Nobody is despised who can manage a crocodile;*
- (3) *Illogical persons are despised.*

would be "solved" by the following explanation: *Babies are illogical and all illogical persons are despised, therefore babies are despised. However, no person who can manage a crocodile is despised, therefore babies cannot manage crocodiles.* The conclusion, by the chain of logic, is that babies cannot manage crocodiles. See if you can solve the sorites below, each counting as a silver side quest (10 XP each; maximum of 50 XP). Note that some of them are quite difficult!

Set 1

- (1) No potatoes of mine, that are new, have been boiled;
- (2) All my potatoes in this dish are fit to eat;
- (3) No unboiled potatoes of mine are fit to eat.

Set 2

- (1) No goods in this shop, that have been bought and paid for, are still on sale;
- (2) None of the goods may be carried away, unless labeled "sold";
- (3) None of the goods are labeled "sold" unless they have been bought and paid for.

Set 3

- (1) No discussions in our Debating-Club are likely to rouse the British Lion, so long as they are checked when they become too noisy;
- (2) Discussions, unwisely conducted, endanger the peacefulness of our Debating-Club;
- (3) Discussions, that go on while Tomkins is in the Chair, are likely to rouse the British Lion;
- (4) Discussions in our Debating-Club, when wisely conducted, are always checked when they become too noisy.

Set 3

- (1) No kitten, that loves fish, is unteachable.
- (2) No kitten without a tail will play with a gorilla;
- (3) Kittens with whiskers always love fish;
- (4) No teachable kitten has green eyes;
- (5) No kittens have tails unless they have whiskers.

Set 4

- (1) Everything, not absolutely ugly, may be kept in a drawing-room;
- (2) Nothing, that is encrusted with salt, is ever quite dry;
- (3) Nothing should be kept in a drawing-room, unless it is free from damp;
- (4) Bathing-machines are always kept near the sea;
- (5) Nothing, that is made of mother-of-pearl, can be absolutely ugly;
- (6) Whatever is kept near the sea gets encrusted with salt.