

33 Relative acidities – Part 2 — Answers

Answers

Work through these after trying the questions yourself.

33.6 Alcohol < phenol < carboxylic acid.

33.7 The carboxylic acid.

33.8 Its anion spreads the negative charge over two oxygen atoms, so it is very stable.

33.9 Into the ring.

33.10 Not at all.

33.11 When a carboxylic acid loses H^+ , the negative charge is spread over *two* electronegative oxygen atoms, giving a very stable carboxylate ion. A phenol's anion spreads its charge only into the ring, so it is less stable. The more stable the anion, the more readily the acid loses H^+ — so the carboxylic acid is stronger.