## Task 3

Take each of the three triangles on the handout, cut them out and locate the circumcentre of (i) each without drawing any construction lines. (ii) In triangle T1, what can you say about the size of all of the angles? In relation to triangle T1, where is the circumcentre located? (iii) Do you think this will be the case for all triangles of this type? (iv) What type of triangle is T2? (v) What name is given to the side opposite the 90° angle? (vi) (vii) In relation to triangle *T*2, where is the circumcentre located? (viii) Do you think this will be the case for all triangles of this type? (ix) What name is given to the largest angle in T3? (x) Could you locate the circumcentre of T3? (xi) Give a reason for your response to the previous question? Do you think this will be the case for all triangles of this type? (xii) Formulate a conjecture to indicate where the circumcentre of any triangle is located? (xiii)

