

# Iteration

$$U_{n+1} = \sqrt{U_n + 5} \quad U_0 = 2$$

$$U_1 = \sqrt{(2) + 5} = \sqrt{7}$$

$$U_2 = \sqrt{(\sqrt{7}) + 5} = 2.765 \text{ (3dp)}$$

$$U_3 = \sqrt{(\text{ANS}) + 5} = 2.787 \text{ (3dp)}$$

$$U_4 = \sqrt{(\text{ANS}) + 5} = 2.790 \text{ (3dp)}$$

$$U_5 = \sqrt{(\text{ANS}) + 5} = 2.791 \text{ (3dp)}$$

$$U_6 = \sqrt{(\text{ANS}) + 5} = 2.791 \text{ (3dp)}$$

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$f(x) = 0$  has a solution between  $a$  and  $b$  if  
 $f(a)$  and  $f(b)$  have different signs