Use the right triangle (shown in the illustration) above to complete the following...

1. Measure and record the lengths of the three sides of the right triangle.
   \[ a \approx \quad b \approx \quad c \approx \]

2. Using the measurements above (recorded in part 1), write the corresponding ratio and then use it to calculate an approximate value (rounded to the nearest thousandth) of the three trigonometric ratios: SINE, COSINE and TANGENT; for both \( \alpha \) & \( \beta \) — by filling in the appropriate spaces as indicated below...
   \[
   \sin \alpha \approx \quad \sin \beta \approx \quad \\
   \cos \alpha \approx \quad \cos \beta \approx \quad \\
   \tan \alpha \approx \quad \tan \beta \approx \quad 
   \]

3. Using the information above (recorded in part 2), determine an approximate value (rounded to the nearest tenth) of the three trigonometric inverses/angles: \( \sin^{-1} \), \( \cos^{-1} \), and \( \tan^{-1} \) for both \( \alpha \) & \( \beta \); include the appropriate unit of measure.
   \[
   \alpha: \quad \sin^{-1} \approx \quad \cos^{-1} \approx \quad \tan^{-1} \approx \quad \\
   \beta: \quad \sin^{-1} \approx \quad \cos^{-1} \approx \quad \tan^{-1} \approx \quad 
   \]

4. Using the information above (recorded in part 3), find an estimate (average) of the angle measures for both \( \alpha \) & \( \beta \); include the appropriate unit of measure.
   \[
   \alpha \approx \quad \beta \approx \quad 
   \]

5. \( \alpha + \beta = \quad \); Is this sum what it should be? Yes / No (circle one)
   Explain: ___________________________