

### MATH 19501 Quiz 14 - Winter 25

Name: \_\_\_\_\_ EMPLID: \_\_\_\_\_ Answer all 4 questions.

You must show all of your work as neatly and clearly as possible and indicate the final answer in the provided region for each non-graph question. For all graph questions, you should sketch your graph on the grid provided.

1. (4 points) Using the formula  $s = r\theta$  find the length of the arc of a circle of radius 10 cm subtended by the central angle of  $45^\circ$ .

Write your answer in the box below:

$s =$
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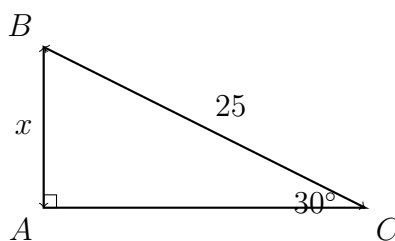
2. (4 points) Find the angle  $\theta$  between  $0^\circ$  and  $360^\circ$  that is coterminal to  $-110^\circ$ .

Write your answer in the box below:

$\theta =$
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3. (4 points) Evaluate  $\sin \frac{\pi}{3} \cos \frac{\pi}{4} - \sin \frac{\pi}{4} \cos \frac{\pi}{3}$ . Write your answer in the box below:

4. (4 points) Find the side labeled  $x$ .



Write your answer in the box below: