

Please show **all** your work for the short answer questions! Answers without supporting work will not be given full credit. Each multiple choice question is worth 2 points. Circle only one answer.

Name: _____

1. (15 points) For the following angles in degrees do each of the following:

- i) Sketch the angle in standard position
- ii) State the quadrant in which the angle terminates
- iii) State the reference angle
- iv) State any trigonometric ratio that is positive in that quadrant
- v) Convert the original angle to radians (in exact form)

a) 210°

b) -15°

c) 530°

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2. (15 points) For the following angles in radians do each of the following:
- i) Sketch the angle in standard position
 - ii) State the quadrant in which the angle terminates
 - iii) State the reference angle
 - iv) State any trigonometric ratio that is positive in that quadrant
 - v) Convert the original angle to degrees to two decimal places where necessary
- a) $\frac{11\pi}{6}$ b) $-\frac{5\pi}{4}$ c) 5.00

3. (3 points) An arc of a circle subtends a central angle of θ degrees. If the length of the arc is 1.2 cm and the diameter of the circle is 4 cm, Find the value of θ to the nearest degree.