Kerry Ojakian's MTH 30 Class
Class Assignment #19

1. Convert $45°$ to radians. **Answer:** $\square$

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2. Convert $0°$ to radians. **Answer:** $\square$

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3. Convert $5\pi/6$ radians to degrees.. **Answer:** $\square$

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4. Convert 2π radians to degrees.. **Answer:** $\square$

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5. Convert from degrees to radians.

   (a) $180°$ (b) $-180°$

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6. Convert from degrees to radians.

   (a) $270°$ (b) $120°$

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7. Convert the angle measure -405° to radians.

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8. Convert the following angle measures (in radians) to degrees.

   (a) π (b) -3π

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9. Convert the following angle measures (in radians) to degrees.

   (a) $\pi/3$ (b) $-\frac{5\pi}{4}$

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10. Suppose a circle with radius 6 has a central angle of 180^o. How long is the arc of the circle that corresponds to this central angle? **Answer:** $\square$

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11. Suppose a circle of radius 4 has a central angle which subtends an arc of length 6π. Find the measure of the central angle. **Answer:** $\square$

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12. In a circle, suppose a central angle of 60 degrees subtends an arc of length 2π. Find the *circumference* of the circle. **Answer:** $\square$

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13. Suppose a circle has a central angle of 50° which subtends an arc of length 10.

    (a) Find the radius of the circle.

    (b) Find the circumference of the circle.

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14. Suppose a sector of a circle has a central angle of $\pi/7$ and its area is 20. Find the radius of the circle.

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15. Suppose a sector of a circle has a central angle of $\frac{2\pi}{3}$ and radius 3. Find the area of the sector.
