

Convert from radians to degrees. Round to 3 decimal places.

$$24. \frac{17\cancel{\pi}}{15} \cdot \frac{180}{\cancel{\pi}} = 204^\circ$$

$$25. \frac{-7\cancel{\pi}}{5} \cdot \frac{180}{\cancel{\pi}} = -252^\circ$$

Convert from degrees to radians, in terms of π .

$$26. 220^\circ \cdot \frac{\pi}{180} = \frac{11\pi}{9}$$

$$27. -648^\circ \cdot \frac{\pi}{180} = \frac{-18\pi}{5}$$

28. Find the measure of the arc intercepted by a central angle measuring $\frac{7\pi}{4}$ radians in a circle of radius 6 cm. Round to 2 decimals.

arc = radius \times radians *Know!*

$$7\pi/4 (6) = \frac{21\pi}{2} = 32.99$$

Cumulative Review Questions: Tests 1 and 2

1. Solve for x and y: $-3 \begin{bmatrix} x & 2 \\ -1 & 4 \end{bmatrix} + 2 \begin{bmatrix} 8 & -3 \\ 1 & y \end{bmatrix} = \begin{bmatrix} -2 & -12 \\ 5 & 8 \end{bmatrix}$

$$\begin{bmatrix} -3x & -6 \\ 3 & -12 \end{bmatrix} + \begin{bmatrix} 16 & -6 \\ 2 & 2y \end{bmatrix} = \begin{bmatrix} -2 & -12 \\ 5 & 8 \end{bmatrix}$$

$$\begin{aligned} -3x + 16 &= -2 & -12 + 2y &= 8 \\ -3x &= -18 & 2y &= 20 \\ x &= 6 & y &= 10 \end{aligned}$$

$$\begin{bmatrix} -3x + 16 & -12 \\ 5 & -12 + 2y \end{bmatrix} = \begin{bmatrix} -2 & -12 \\ 5 & 8 \end{bmatrix}$$

2. Evaluate: $\begin{vmatrix} 4 & -1 \\ 7 & 2 \end{vmatrix}$

$$\det 8 - (-7) = 15$$

3. Identify the type of conic: circle, parabola, ellipse, hyperbola

a. $\frac{(y+1)^2}{10} - \frac{x^2}{4} = 1$

b. $\frac{(x+2)^2}{9} + \frac{(y-1)^2}{16} = 1$

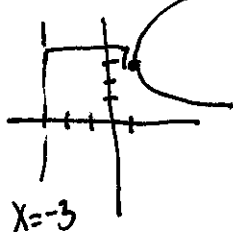
Hyperbola

Ellipse

4. Write the equation of a circle with center (-4, 1) and radius = 5.

$$(x+4)^2 + (y-1)^2 = 25$$

5. Write the equation of a parabola with vertex (1, 3) and directrix $x = -3$



$$p = 4$$

$$(y-3)^2 = 16(x-1)$$