

Today's Plan:

Learning Target (standard): I will review polar coordinates & graphing polar equations.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work and take a quiz over the polar coordinate system.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide quiz problems over the polar coordinate system.

Assessment: Board work, homework check and quiz

Differentiation: Students will work at the board, go over and correct homework at their seats and actively engage in quiz problems.

Polar Coordinates Review

- 3) $(-3, 90^\circ), (3, -90^\circ), (3, 270^\circ)$
- 4) $\left(4, \frac{5\pi}{6}\right), \left(4, -\frac{7\pi}{6}\right), \left(-4, \frac{11\pi}{6}\right)$
- 5) $(-\sqrt{3}, -1)$
- 6) $(-2\sqrt{2}, 2\sqrt{2})$
- 7) $\left(1, \frac{3\pi}{4}\right)$
- 8) $\left(3, \frac{11\pi}{6}\right)$
- 9) $r = -4 \cos \theta$
- 10) $r = -2 \cos \theta + 2 \sin \theta$
- 11) $y = \frac{1}{4}x^2$
- 12) $(x-1)^2 + y^2 = 1$
- 13) limaçon with inner loop
- 14) rose with 3 petals

QUIZ Today

Graph the polar equation.

$$r = 6\cos(2\theta)$$

θ	r	θ	r
0	6	π	6
$\frac{\pi}{6}$	3	$\frac{7\pi}{6}$	3
$\frac{\pi}{4}$	0	$\frac{5\pi}{4}$	0
$\frac{\pi}{3}$	-3	$\frac{4\pi}{3}$	-3
$\frac{\pi}{2}$	-6	$\frac{3\pi}{2}$	-6
$\frac{2\pi}{3}$	-3	$\frac{5\pi}{3}$	-3
$\frac{3\pi}{4}$	0	$\frac{7\pi}{4}$	0
$\frac{5\pi}{6}$	3	$\frac{11\pi}{6}$	3
π	6	2π	6

