Algebra 2
Unit: Trigonometric Functions
Section: Graphing Trigonometric Functions

Flashcards: Graphing Transformations of Trigonometric Functions

Directions: Describe the graph of the function.

1. Graph the function $y = 2\cos x + 2$

2. Graph the function $y = \sin(x - 90°)$

3. Graph the function $y = \cos(x + 45°)$

4. Graph the function $y = \tan x - 3$

Answers:

1. This is the cosine function, shifted 2 units up, with an amplitude of 2. It starts at (0, 4), curves down to (180, 0), and back up again to (360, 4). This repeats to the left and the right.

2. This is the sine curve shifted 90 degrees to the right. It starts at (90, 0), curves up to (180, 1), down to (360, negative 1) and back up to (450, 0). This repeats to the left and the right.

3. This is the cosine curve shifted 45 degrees to the left. It starts at (negative 45, 1) curves down to (135, negative 1) and back up to (315, 1). This repeats to the left and right.

4. This is the tangent curve shifted 3 units down. It goes through the point (0, negative 3) and goes up to the right, approaching the asymptote at x equals 90 degrees. It also curves down to the left from that point approaching the asymptote at x equals negative 90 degrees. This repeats to the right and left.