

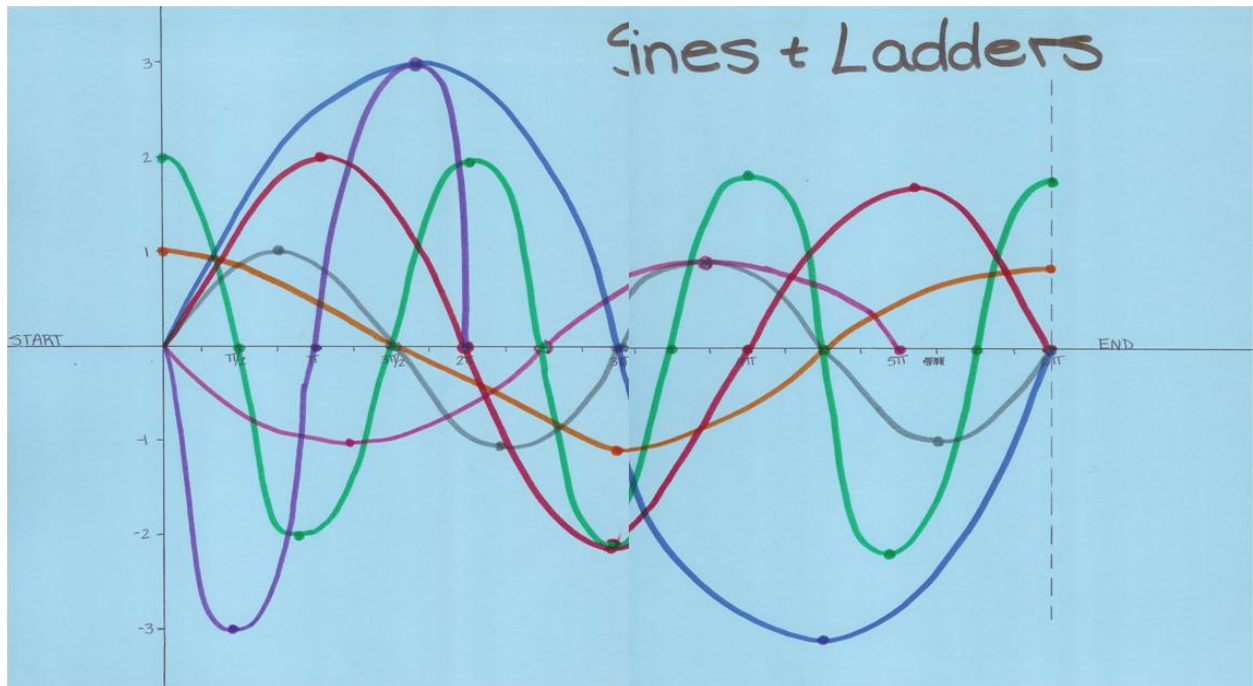
Sines and Ladders

Review for Sine and Cosine Graphs Pre-Calculus

Directions: This is a game for you to review for the quiz on graphing the sine and cosine functions. If you are not completely comfortable with finding the max/min points, zeros, amplitude, and period of these functions then this is not the activity for you and you should be asked to be switched to another group. This activity is suitable for those students who are very comfortable with the topic and just need to review.

This game can be played with two to four players. Each player's game piece should start on one of the curves at 0 (except players are not permitted to start on the blue curve). Each person takes a turn in which another player will pick the card from the top of the pile and read the question to the player whose turn it is. The player must answer the question (scratch paper can be used) correctly. If the player gets the question correct, the player can move ahead one space (one space is considered one move from one key point to another key point such as from a minimum to a zero or a zero to a maximum). If the player gets the question incorrect they must go back one space. The players must stay on the same curve that they choose at the start of the game unless another curve goes through the same key point that their game piece is on and then the player can jump off onto the new curve. When a player has reached the end (any of the key points with an x-coordinate of 6π), before they win another card must be chosen in which they must give amplitude, period, max/min points, and zeros and graph the equation to win. Ms. Bifulco will check this final answer to announce a winner in the group.

Sample Game Board:



Sample Question Cards for "Sines and Ladders" Review Game

Find # cycles in interval $[-6\pi, 3\pi]$ for
 $y = \frac{1}{3}\sin 4x$?

answer: 18

whats min pts. $y = -\frac{1}{2}\sin \frac{10x}{3}$

answer: $(\frac{3\pi}{20}, -\frac{1}{2})$

Is $y = 4\cos(-2x)$ a typical or image
curve?

answer: typical