Sine Game Rules

Put class into 5 teams.

Give each team 10 cards.

Display a sinusoid.

There are 5 cards that match the sinusoid.
- The equation of the sinusoid (in sine only).
- The period of the sinusoid.
- The phase shift of the sinusoid.
- The centerline of the sinusoid.
- The amplitude of the sinusoid.

Scoring:

➢ The first team to correctly match a card to the sinusoid earns 5 points.
➢ The second team to correctly math a card to the sinusoid earns 4 points.
➢ The third team: 3 points
➢ The fourth team: 2 points
➢ The fifth team: 1 point

Note – A team may not have a card that matches OR a team may have more than one card that matches.

➢ If a team incorrectly matches a card with the sinusoid, the team loses 2 points.
➢ If a team has a correct card but does not say anything, that team loses 2 points.

Variation 1:

Put students into groups.
Give each group all 50 cards and all printed sinusoids.
Have the students match 5 cards to each sinusoid.

Variation 2:

If you want students to focus on only a few things (ex. centerline and amplitude), only hand out the cards that have those items on them.

Variation 3:

Display the 10 equations on the board. Give each student at least one of the other cards (2 if your class is small enough). Call on students to determine which equation their card matches.

Variation 4:

Put students into groups. Give each group 4 matching cards (period, phase shift, amplitude, and centerline). Have students develop the equation and graph the sinusoid.

The Sine Game Answers

Graph 1 →	A10	B2	B6	D10	E10
Graph 2 →	A3	A7	C8	D2	E5
Graph 3 →	C1	C4	D8	E1	E4
Graph 4 →	A6	B1	C3	D1	D9
Graph 5 →	B4	B10	D6	E7	E9
Graph 6 →	A4	A9	C5	E3	E6
Graph 7 →	A8	B7	B9	D7	E8
Graph 8 →	C6	C7	C10	D4	E2
Graph 9 →	A1	B5	C2	D3	D5
Graph 10 →	A2	A5	B3	B8	C9