Vector Game

Apparatus

large clear floor area marked with grid, set of cards showing vectors

The grid can be marked on using masking tape. The squares should be big enough to stand in, and an *x* and *y* direction should also be clearly marked. The cards should have a vector written on them, and a diagram showing the vector.

Action

One student acts as caller, and also as referee. The other students choose a starting position and walk the vectors called by the caller. The caller should call one vector, and then watch that everyone walks it correctly. The diagram on the card allows the caller to double-check the vectors as walked.
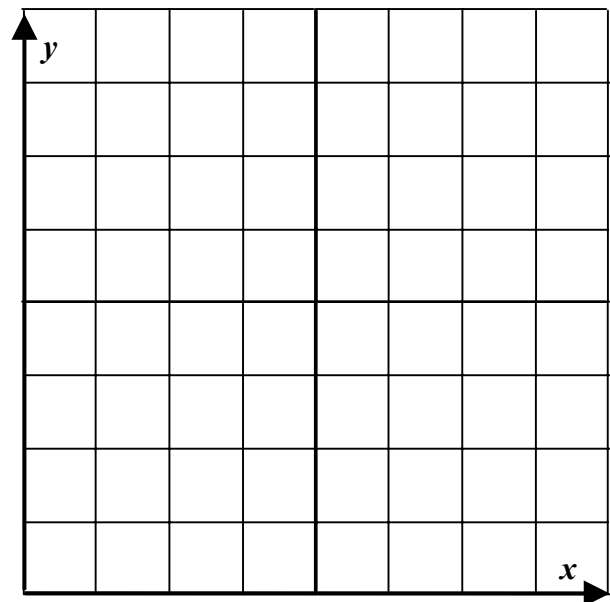
The Physics

The axes are chosen in advance and marked, so you know which direction is +x and which direction is +y. For example, forward may be +y and right may be +x. If the caller says "5x + 3y" you take 5 steps to the right and three steps forward. If the caller says "-5x - 3y" you take five steps left and three steps back.
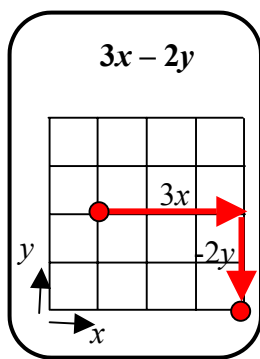
sample card

grid on floor

Accompanying sheet

Vector Game

One group member is the caller and judge.
They take the cards and call out the vectors, and see who walks them correctly.

Everyone else chooses a starting point near the middle.
Walk the vector as called.
When you get it wrong, you're out!