MATHLETE

Distance Formula

Name _____ Date _____

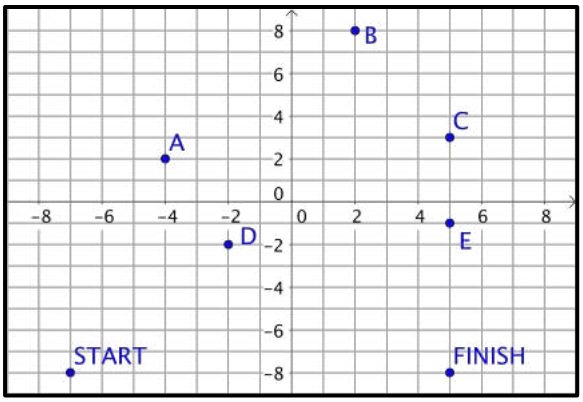
STARTING LINE

BACKGROUND

Evelyn is an athletic director and it's her job to design the cross-country course for this season. She has a map of the possible checkpoints.

Her only restrictions are that she can only use 4 of the points (A – E) and she wants to limit the number of "crossovers" so runners don't collide. *Each unit represents 100 meters.*

The last two years have used A-B-C-E and A-D-C-E, and she would like something at least 600 meters longer even if it means one crossover.



What course would you create to make it longer with at most one crossover?

CHECKPOINT

RESEARCH

Use this space to make any calculations and show work.

HOMESTRETCH

ARGUMENTS

What are the two or three best choices to make and why?

DECISION

Make a decision and provide reasons to support it.

FINISH LINE

Distance Formula

Name _____ Date _____

STARTING LINE

BACKGROUND

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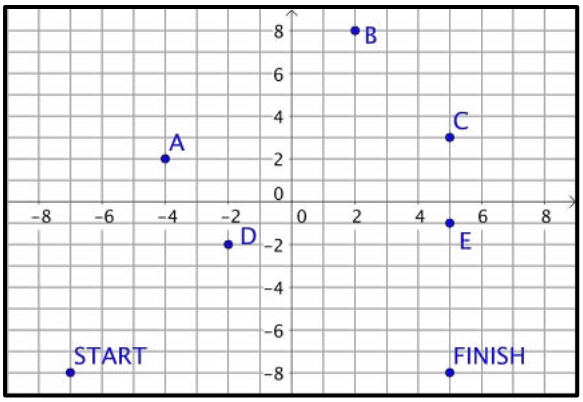

What course would you create to make it longer with at most one crossover?

CHECKPOINT

RESEARCH

Use this space to make any calculations and show work.

A-B-C-E equals 10.4 + 8.5+ 5.8 + 4+ 6 = 3470 m

A-D-C-E equals 10.4 + 4.5+ 8.6 + 4+ 6 = 3350 m

The answers will vary. This is a good route that is long and only crosses over once. E-B-A-D
The distances are 12.5 + 8.9 + 7.1 + 4.5 + 8.6 = 41.6 x 100 = 4160 Meters

HOMESTRETCH

ARGUMENTS

What are the two or three best choices to make and why?

Testing the first two routes will give a lower number with no crossovers. This will give the students a starting point for their work. They can try to create a longer route than the ones given.

The route about E-B-A-D provides a longer route with just one crossover.

DECISION

Make a decision and provide reasons to support it.

Students will choose one of their arguments and provide a rationale for why they are making their decision.

FINISH LINE