You are planning a trip across the USA with friends, starting in New York at the ordered pair \((23, 17)\). You plan to travel through at least 10 states and split your trip into five days of driving.

Plan each day of your trip by choosing what locations you want to visit and determine the distance you will travel each day. You MUST make a pit stop every day for gas and food. This pit stop must be EXACTLY half-way (your midpoint) between the state you started driving from that morning and the state you plan on spending the night in.

Now start planning the best trip ever!
Grading Rubric: How to plan the best road trip ever & earn 100 points?

<table>
<thead>
<tr>
<th>Points Earned</th>
<th>Project Work</th>
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| 100           | 1. You show all your work using the distance formula and writing the distance formula each of the times that you use it. Distance formula must be used a minimum of five times.  
2. Make sure to correctly convert all distances from units into miles.  
3. You show all your work using the midpoint formula and writing the midpoint formula each of the times that you use it. Midpoint formula must be used a minimum of five times.  
4. You correctly calculate the distance you travel each day on your road trip and the total distance that you will travel on your road trip  
5. Plot the starting point on your map (23, 17), plot each point you stop to sleep, and plot each “pit stop” point and label it with a “P.”  
6. Describe your day! Include a sentence or two explaining where you are driving to and where you are making a pit stop each day. Be creative! This is your chance to look up any interesting information about a city or state. Plan to see a baseball game at Camden Yards or make a stop at Mount Rushmore or go visit the Grand Canyon! |
| 90-99         | One of the six project objectives listed above is wrong or incomplete. Example: You forgot to rewrite the distance formula or did not convert your distance from units into miles. You did not label the “pit stop” on your map with a “P.” |
| 80-89         | Two of the six project objectives listed above contains an error or is missing work or detail. Example: You only calculated the midpoint four times and forgot to describe your day of traveling on the last day. |
| 65-79         | Three to four of the six project objectives listed above contains errors, lack of detail, and is incomplete. Example: You did not remember to calculate the TOTAL distance you traveling, and you are missing your work for calculating a distance, midpoint, and converting a distance into miles. |
| Below 65      | Incomplete. Map is missing plotted points. The distance and midpoint formulas are not written or used enough times. Multiple parts are left incomplete or are calculated incorrectly. Clear lack of attention to detail. |

**Extra Credit:** Your road trip is over and you had the best time you could possibly imagine. Below draw or take a photo of you (and your friends) that captures your favorite part of your road trip.
*The **Total Distance** from start to finish that you will travel is ________ miles.

**Day 1:** We drive from New York to __________________. (You can choose a city too!)

The distance is __________ units, so we will have to drive ___________ miles.

We will have to make a pit stop for gas and food in ________________________________ because the midpoint is ________.

On day 1 we..._____________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

**Day 2:** We drive from __________________ to __________________________. 

The distance is __________ units, so we will have to drive ___________ miles.
We will have to make a pit stop for gas and food in __________________________ because the midpoint is __________.

On day 2 we...____________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Day 3: We drive from __________________ to ____________________________.
The distance is __________ units, so we will have to drive ___________ miles.

We will have to make a pit stop for gas and food in __________________________ because the midpoint is __________.

On day 3 we...____________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________