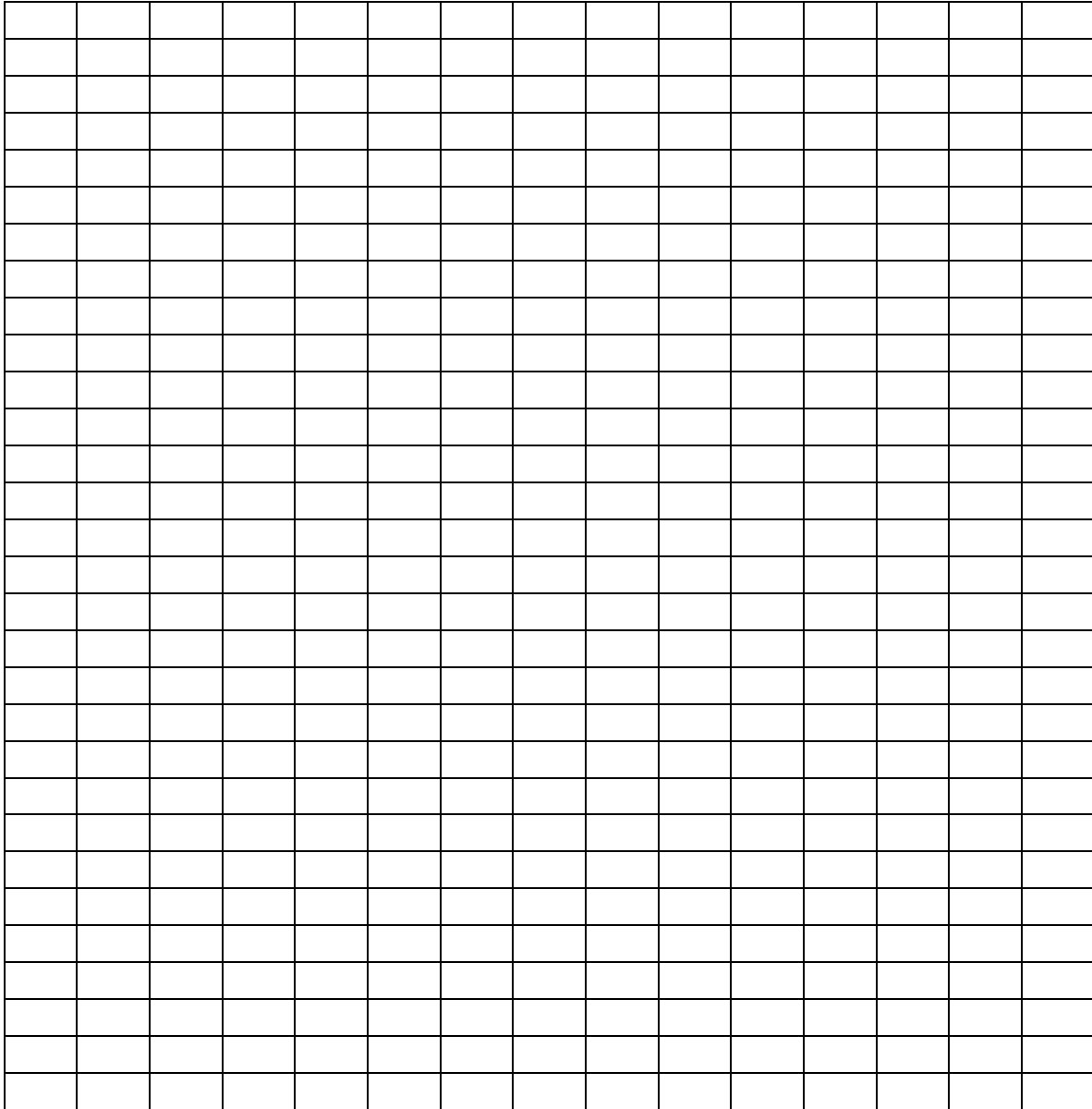




NAME \_\_\_\_\_ Date \_\_\_\_\_

Graph Paper



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# Graph Criteria

Does your graph include...

- appropriate graph title
- labels for the units on the axes
- appropriate numbers for the scale
- accurately graphed data

	Beginning	Developing	Refining	Proficient
<b>Graph</b> <ul style="list-style-type: none"> <li>• title</li> <li>• label</li> <li>• scale</li> <li>• data</li> </ul>	<p>The graph includes the basic title, labels, and scale that barely explain what the data shows. The data is presented in increments that almost make sense with the data, but may give too much or too little detail for other people to analyze.</p>	<p>The graph includes a more detailed title (maybe in the form of a question), labels, and scale that sufficiently explain what the data shows. The data is presented in increments that make sense in terms of the numbers of the data, but it could be refined to improve analysis by other people.</p>	<p>The graph includes a title (a question that is well defined or other title), labels, and scale that clearly capture the data. An explanation of what the data shows is included and repeats what the parts show. The data is presented in increments that facilitate easy analysis. The presentation of the data helps people understand the problem and draw accurate conclusions about the problem.</p>	<p>The graph includes a title, labels, and scale that capture what the data shows with an appropriate individual style. An explanation of what the data shows elaborates on the parts so others can easily understand the graph. The presentation of the data paints a vivid picture of the problem with clear and organized information to make appropriate predictions about how to solve the problem. It also helps other people make connections to what the data means for their lives with pictures, colors, or style.</p>
<b>Data Diary Entry</b> <ul style="list-style-type: none"> <li>• understanding content</li> <li>• ideas</li> </ul>	<p>The writing shows a basic understanding of the content as discussed in class. It includes general details that mimic class discussions. The ideas in the writing are general and may not clearly explain the individual's experience.</p>	<p>The writing begins to show an individual understanding of the content with some details and examples as related to experiences and begins to go beyond what has been discussed in class. The ideas clearly explain the individual's experiences and observations.</p>	<p>The writing shows an understanding of the content based primarily on the individual's experiences. Details and examples are supportive of observations and begin to show more conventional analysis. The ideas uniquely and clearly explain the individual's experiences and observations and also attempt to analyze.</p>	<p>The writing shows an understanding of the content that begins to generalize to unknown experiences. Details are unique and examples are vivid to support analysis based upon the individual's experiences and beyond. The ideas uniquely and clearly explain the analysis and begin to question observations based upon experiences to lead to future investigations.</p>



PRODUCT RUBRIC (Student Copy)

	Beginning	Developing	Refining	Proficient
The graph includes...				
<ul style="list-style-type: none"> <li>• <b>title</b></li> <li>• <b>label</b></li> <li>• <b>scale</b></li> </ul>	<p>___ <b>Parts</b> are basic or barely there.</p> <p>___ The parts try to <b>explain</b> what the data shows.</p>	<p>___ <b>Parts</b> are more detailed.</p> <p>___ The parts <b>explain</b> what the data shows.</p>	<p>___ <b>Parts</b> clearly capture the data.</p> <p>___ There is also an <b>explanation</b> that repeats what the parts already show.</p>	<p>___ <b>Parts</b> capture what the data shows with an appropriate individual style to enhance interpretation.</p> <p>___ There is a clearly written <b>explanation</b> that elaborates on the parts to make the graph easier to understand.</p>
<ul style="list-style-type: none"> <li>• <b>data</b></li> </ul>	<p>___ It is <b>presented</b> in increments that try to make sense of the data, but may show too much or too little detail.</p> <p>___ Other people have to ask questions to <b>analyze</b> it.</p>	<p>___ It is <b>presented</b> in increments that make sense, but may not be the best choice.</p> <p>___ Other people can <b>analyze</b> it in terms of the numbers.</p>	<p>___ It is <b>presented</b> in increments that make it easy to analyze.</p> <p>___ Other people can <b>analyze</b> it, understand the problem, and draw accurate conclusions from it.</p>	<p>___ It is <b>presented</b> as clear as a picture with organized information that connects to people’s lives though pictures, colors, or style.</p> <p>___ Other people can <b>analyze</b> and make good predictions about how to solve the problem from it.</p>
Data Diary Entry shows...				
<ul style="list-style-type: none"> <li>• <b>understanding the content</b></li> </ul>	<p>The writing sounds just like what we talked about in class because there are... ___ just a few <b>details</b>. ___ <b>examples</b> that are the same ones we used in class.</p>	<p>The writing sounds like you are beginning to understand what we talked about in class because there are... ___ <b>details</b> about your own experience. ___ <b>examples</b> of your own experience.</p>	<p>The writing sounds like you are increasing your understanding of the concept because there are... ___ <b>details</b> about your own experiences that support an understandable conclusion about the concept. ___ <b>examples</b> to adequately support your conclusions.</p>	<p>The writing sounds like your understanding is going beyond what we have talked about in class because there are... ___ <b>details</b> that are unique, accurate, and attempt to project conclusions beyond your experiences. ___ <b>examples</b> that vividly support your conclusions and analyze what this means for your life.</p>
<ul style="list-style-type: none"> <li>• <b>ideas</b></li> </ul>	<p>___ They are general and may not clearly <b>explain</b> your own experience.</p>	<p>___ They clearly <b>explain</b> your own experiences and observations.</p>	<p>___ They are uniquely accurate and not only clearly <b>explain</b> your experiences and observations but also attempt to analyze.</p>	<p>___ They uniquely and clearly <b>explain</b>, analyze and begin to question observations based upon your experiences. They tell how you plan to investigate your questions in the future.</p>



### Drawing Bugs Game Direction Sheet

The object of the game is to complete a bug with the correct number of body parts.  
A complete bug in this game has 1 tail, 2 antennae, 3 body parts, 4 wings, 5 eyes, and 6 legs.



If you roll a ...



= 1 tail



= 1 antenna



= 1 body part



= 1 wing



= 1 eye



= 1 leg

Drawing Space

Once you have rolled the die and have drawn the required number for each body part, tally your extra rolls on the chart below...


**CHALLENGE:** Do you know which bug in real life has the same number of body parts?