Name _____ Date _____ Period _____

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Stimulus and Response

Biology

Answer in complete sentences. Show your work for calculations.

1. Name the type of response in each example.

Stimulus and response	Type of response (phototropism, gravitropism, thigmotropism, or behavior)
A shoot grows toward a window	
A root grows downward in the soil	
A vine coils around a fence post	
A lizard moves into the shade when it gets too warm	

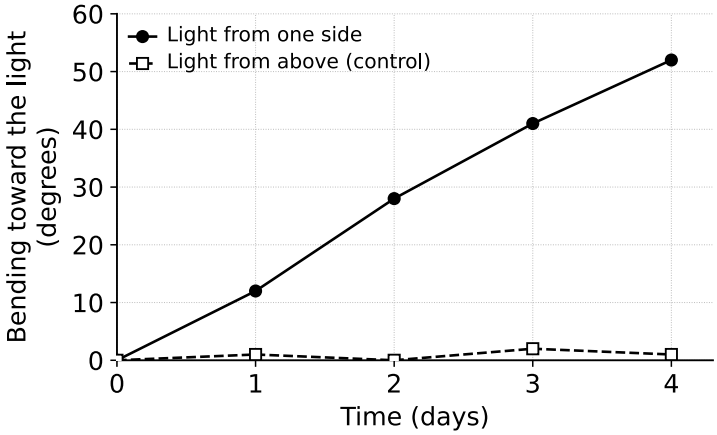
2. In a choice chamber, 20 pill bugs were placed in the middle, and the number on the damp side was counted after 10 minutes in five trials: 16, 14, 17, 15, 18.

(a) Find the mean number of pill bugs on the damp side.

(b) What percent of the pill bugs were on the damp side, on average?

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3. Seedlings were grown with light from one side or from above, and the bending was measured (sample data).



Write a claim, evidence, and reasoning about the effect of one-sided light.

4. Stomata close when a plant is short of water. Explain how this helps the plant and one cost of this response.

5. Plan an investigation to test whether crickets prefer light or dark. Name the independent variable, the dependent variable, and one variable you would keep the same.

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