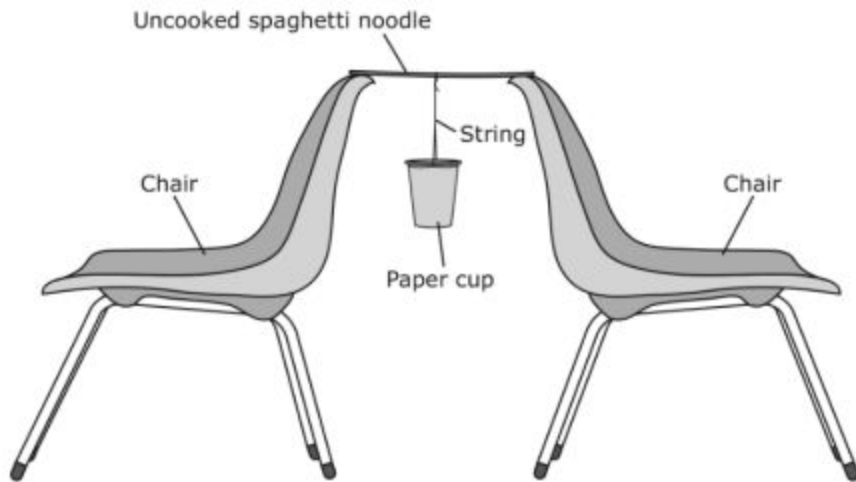


A student conducts the investigation shown in the diagram. In this experiment a paper cup hangs from a string tied to a single uncooked spaghetti noodle. The student measures and records the mass of a penny. The student then adds pennies to the paper cup one at a time.



Which question is the student most likely trying to answer with this investigation?

- A** How many spaghetti noodles will it take to hold up the mass of a penny?
- B** How much force will it take to break the spaghetti noodle?
- C** How long should the string that holds the paper cup be in order to support the greatest mass of pennies?
- D** How does the distance between the two chairs affect the amount of force it takes for the spaghetti noodle to break?

Explain why your answer is correct using information from the question.

(5.6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

(D) design a simple experimental investigation that tests the effect of force on an object.

5.6F Making inferences

	0	1	2
Inference	Cannot infer	Infer correctly	Infer correctly
Supporting evidence	Evidence is not connected to answer	Has supporting evidence	Reasoning supports answer choice