**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Creating Equations (A.CED.3)**

A company’s manager estimated that the cost *C*, in dollars, of producing *n* is *C* = 7*n* +350. The company sells each item for $12. The company makes a profit when total income from selling a quantity of items is greater than the total cost of producing that quantity of items. Which of the following inequalities gives all possible values of *n* for which the manager estimates that the company will make a profit?

|  |  |  |
| --- | --- | --- |
| Statement | Yes or No | Explain your thinking |
| 1. *n* < 70 |  |  |
| 1. *n* < 84 |  |  |
| 1. *n* > 70 |  |  |
| 1. *n* > 84 |  |  |

Source:

SAT Released Items

<https://collegereadiness.collegeboard.org/sample-questions/math/calculator-permitted/12>

Problem 12, Calculator Permitted

Heart of Algebra