Possible Solutions Example 2

Taxi A charges $0.25 per mile and an initial fee of $5. Taxi B charges $0.5 per mile and an initial fee of $2. Write an inequality that can be used to determine when the cost of Taxi B will be greater than Taxi A.

Possible Solution 1

- When translating a word problem to an inequality, it is necessary to determine which inequality to use. In this case, the inequality will be when Taxi B is greater than Taxi A, therefore the inequality will be Taxi B > Taxi A or Taxi A < Taxi B.
- It is important to identify the variable; in this case it is the number of miles (m) traveled in the taxi.
- The next step is to identify what is being multiplied and the fixed cost. In this case, the cost per mile is the multiplicative piece of the problem and the initial fee is the fixed cost.

$$0.25x + 5 < 0.5x + 2$$