Punxsutawney Phil has seen his shadow 100 out of 116 times. What is the probability that he will see his shadow in 2015?

Use a number model or diagram to explain your thinking.

 (A number sentence that shows how the parts of a number story are related)

Directed Questions: 

A fraction shows the relationship between a **part** and the **whole.** One half is 1 of 2 pieces, or ½.

* What is the TOTAL number of times Phil has been taken out of his home on Groundhog Day, by people wishing to see if he had a shadow? \_\_\_\_\_\_\_\_ That is the whole.
* How many times has he seen his shadow? \_\_\_\_\_\_\_\_\_ That is the part of the whole.
* How many times in 116 tries has Phil not seen his shadow? \_\_\_\_\_\_\_\_
* Create a fraction to represent the times that Phil has seen his shadow, out of 116 tries.

Reduce that fraction into simplest terms to represent the probability of Phil seeing his shadow next year. \_\_\_\_\_\_\_

* What is the ratio of times the shadow was seen compared to the times not seen? \_\_\_\_\_\_\_
* Based on the above ratio, how many more times is likely that Phil will see his shadow?
	+ Between 4 and 5 times
	+ Between 5 and 6 times
	+ Between 6 and 7 times
	+ Between 7 and 8 times

Explain your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_