

## Hint Handout

The following may help you solve our dilemma.

In a bag are a lot of red and blue marbles. 25 are red, but you don't know how many are blue.

You reach in and grab a handful of marbles. You bring out 30 marbles. 10 of them are red and 20 are blue.

If you know there are 25 red marbles in the bag, and you caught 10 of them, what proportion (or percent) of the total red marbles did you grab?

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Is there a way that you can use this relationship to figure out how many marbles there are in total?

Things you know:

You grabbed 10 red marbles.

There were 25 reds in the whole bag.

You therefore grabbed \_\_\_\_\_% of the total red marbles.

You grabbed 30 marbles in all. Do you have a way to relate your 30 marbles to the whole bag of marbles?

Discuss this mystery over with your group. See if you can figure out a way to get the total number of marbles in the bag.