

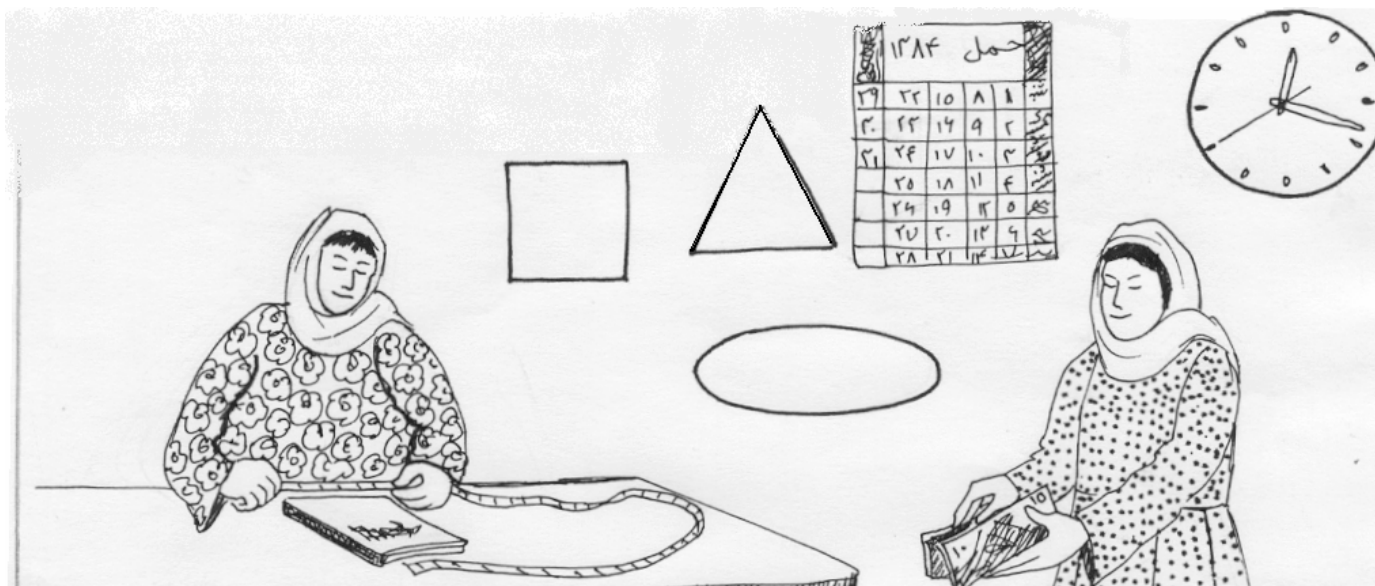


# USAID | AFGHANISTAN

FROM THE AMERICAN PEOPLE

## Learning for Life Foundations Program

*DRAFT*



# Math

Level 2

Milestone 4

English

REACH is a USAID-funded program implemented by Management Sciences for Health (MSH) under contract EEE-C-00-03-00015-00. Partners include The Academy for Educational Development (AED); Health and Development Services (HANDS); JHPIEGO; Technical Assistance, Inc. (TAI); and the University of Massachusetts/Amherst.

Learning for Life is managed by the University of Massachusetts/Amherst and in conjunction with the International Rescue Committee implemented in 12 USAID priority provinces in Afghanistan.

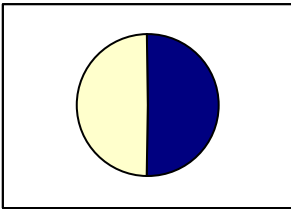
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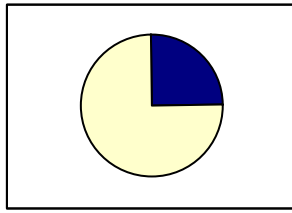
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or contact [cie@educ.umass.edu](mailto:cie@educ.umass.edu)

RURAL EXPANSION OF AFGHANISTAN'S COMMUNITY-BASED HEALTH CARE (REACH)  
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**Milestone 4, Activity 1: Review of fractions and circle parts – circle charts with fractions**



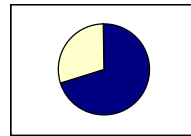
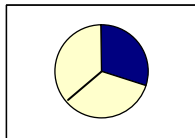
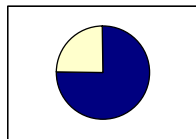
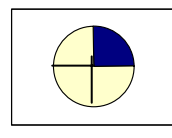
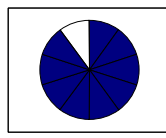
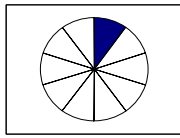
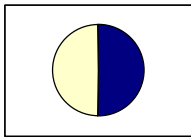
$1/2$



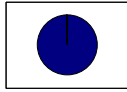
$1/4$



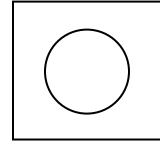
Write the shaded fractions underneath the circles, and the cup of tea showing the fraction shaded:



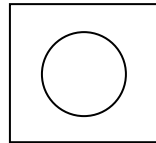
A whole watermelon:



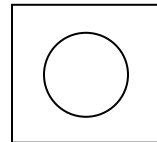
- How would half of a watermelon be shown with a circle?



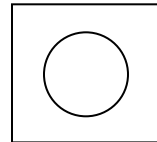
- How would  $\frac{1}{4}$  of a watermelon be shown?



- How would a small slice of a watermelon be shown?

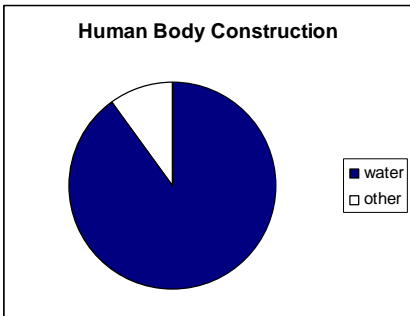
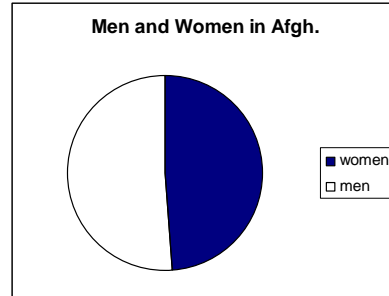


- How would a large slice of a watermelon be shown?

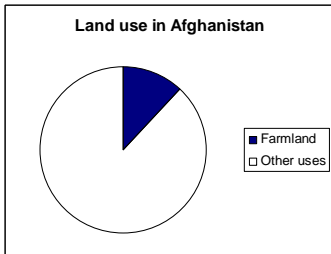


Other examples:

**Milestone 4, Activity 2: Information in a visual form**



- What does this circle tell us about the body?  
What is our body mostly made of?
- How does this help us understand why we need to drink a lot of water, especially if we have diarrhea??

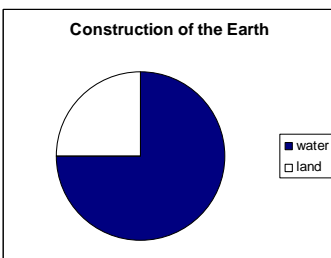


What does the whole circle represent?

What does the shaded area represent?

What does the unshaded area represent?

What does the circle tell us?

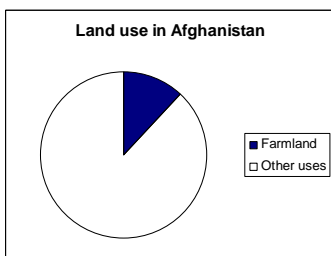


What does the whole circle represent?

What does the shaded area represent?

What does the unshaded area represent?

What does the circle tell us?



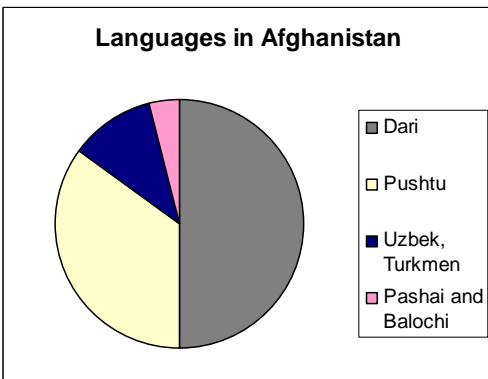
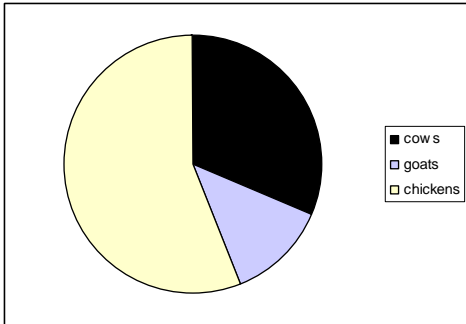
What does the whole circle represent?

What does the shaded area represent?

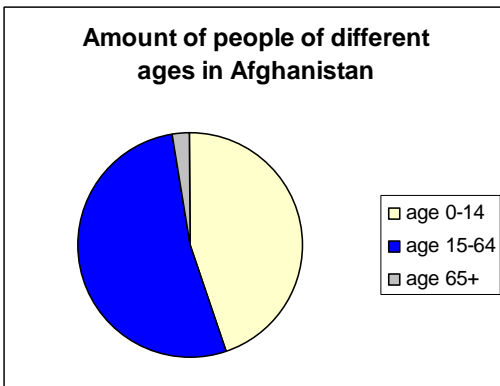
What does the unshaded area represent?

What does the circle tell us?

**Milestone 4, Activity 3: Circles with more than 3 parts**

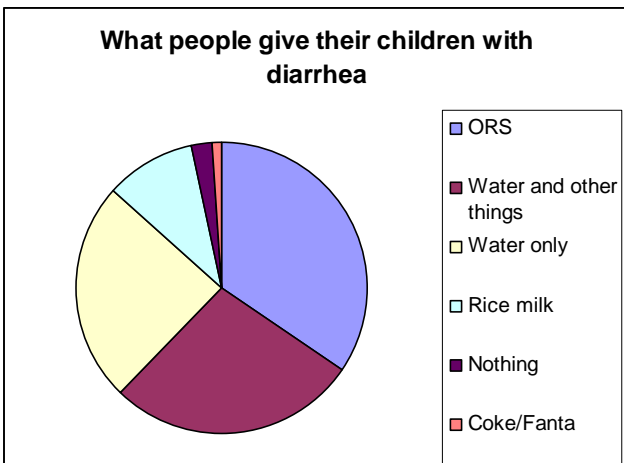


**Questions:** What language is spoken most in Afghanistan? What languages are spoken the least?



**Questions:** Are there more old people or young people in Afghanistan?

Why are there so few old people?



**Questions:** What do most people give their children when they have diarrhea?

**Milestone 4, Activity 4: Percent Numbers as Part of a Circle**

Draw lines matching the circle with the percent shaded.



50% shaded



30% shaded



1% shaded



10% shaded



100% shaded



75% shaded





25% shaded


Write examples underneath each circle.


**Milestone 4, Activity 5: Percent and the Rest of the Circle**


Write the percent unshaded:


	100% shaded	= _____ unshaded
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
	75% shaded	= _____ unshaded
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	50% shaded	= _____ unshaded
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	30% shaded	= _____ unshaded
---	------------	------------------

	25% shaded	= _____ unshaded
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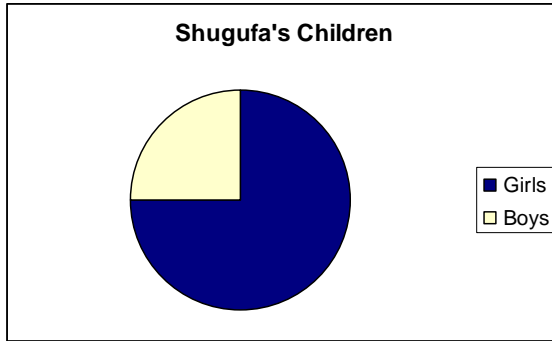
	10% shaded	= _____ unshaded
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	1% shaded	= _____ unshaded
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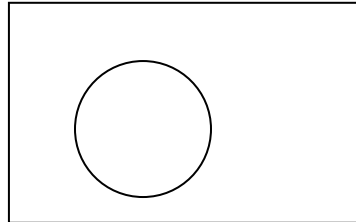
**Milestone 4, Activity 6: Making Percent Circles**

**Estimate your answers to these questions, and shade the amount that answers the question. Estimate the percent. Write titles with your circles.**

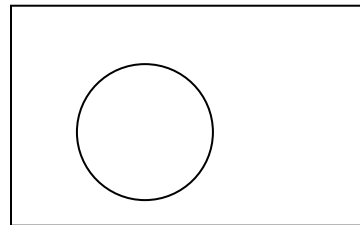
**Example:**



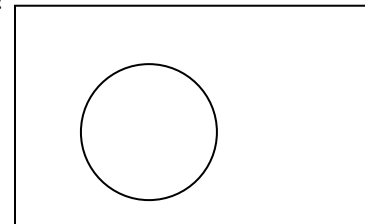
What percentage of your children are girls?



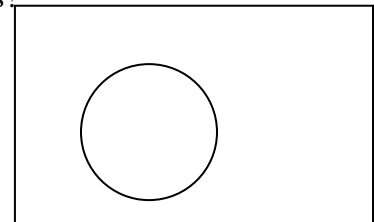
What percentage of your day is spent in your LfL class?



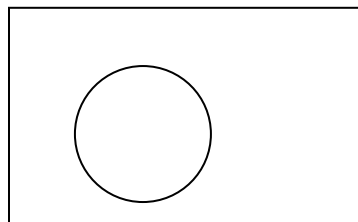
What percentage of your day is spent doing work at home?



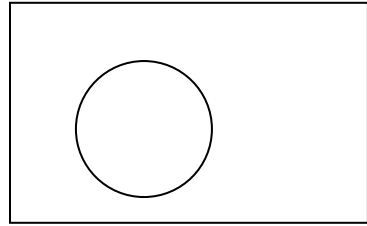
What percentage of your day is usually spent talking with friends?



What percentage of your money do you save?

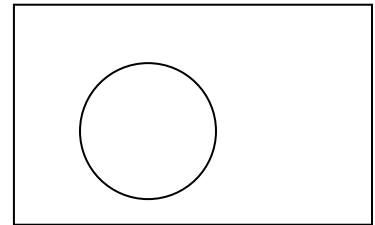
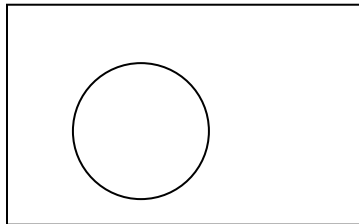
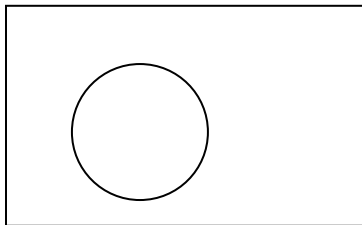
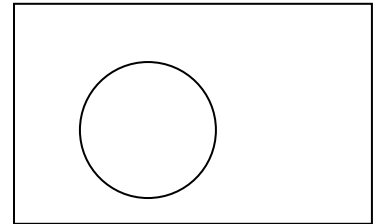
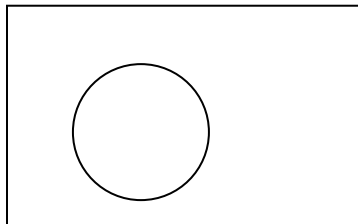
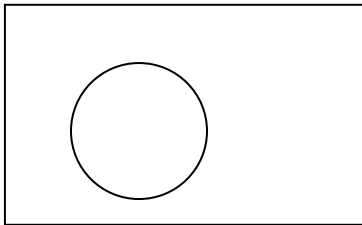


What percentage of the time are your children good and well-behaved?



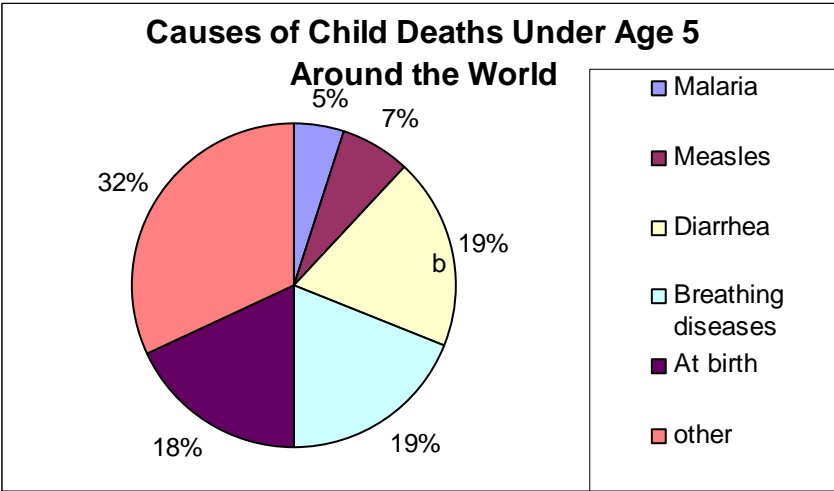
Other percentages in my life:  
Think about questions such as:

- What percentage of the time am I satisfied with my life?
- What percentage of our village is friendly and peaceful?
- What percentage of my family is kind and helpful?
- What percentage of the children in our family go to school?
- What percentage of my children have received vaccinations?
- What percentage of the time am I feeling healthy?



**Milestone 4, Activity 7: Analyzing Percents**

*Answer the questions for every chart:*



*Example answers:*

**Title of the chart:**

Causes of death of children under age 5

**List of percentages:**

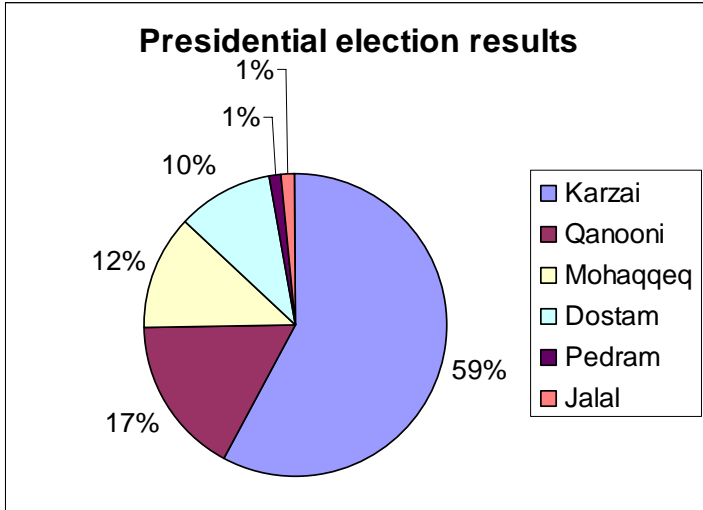
- 32% die from other causes
- 19% die from diarrhea
- 19% die from breathing diseases
- 18% die at birth
- 7 % die from measles
- 5% die from malaria

**Sentences telling what I learned from this chart:**

This chart shows that most children under 5 die from causes that can be prevented, such as diarrhea and measles.

**Which part of the chart I belong to:**

I had one child that died of diarrhea, so that child is in the 19% part of the chart.



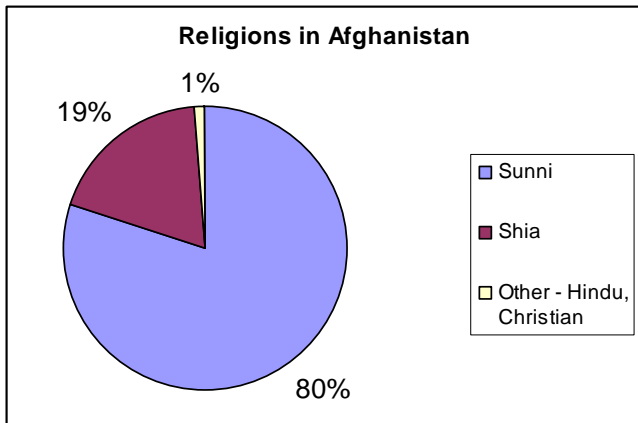
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Did you vote? Who did you vote for?



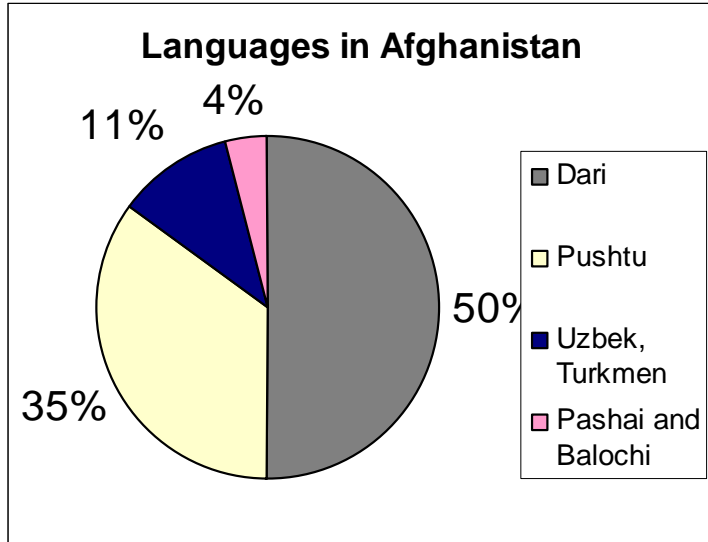
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Which religion do you belong to on this chart?



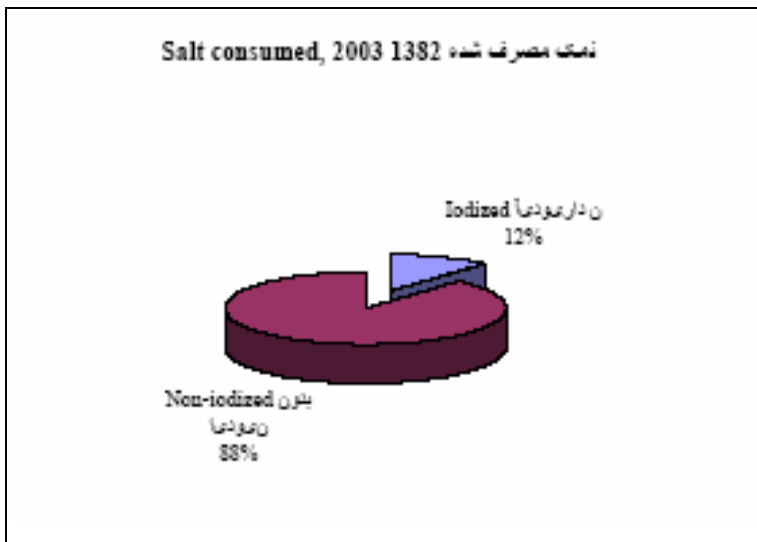
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Which of these languages do you speak?



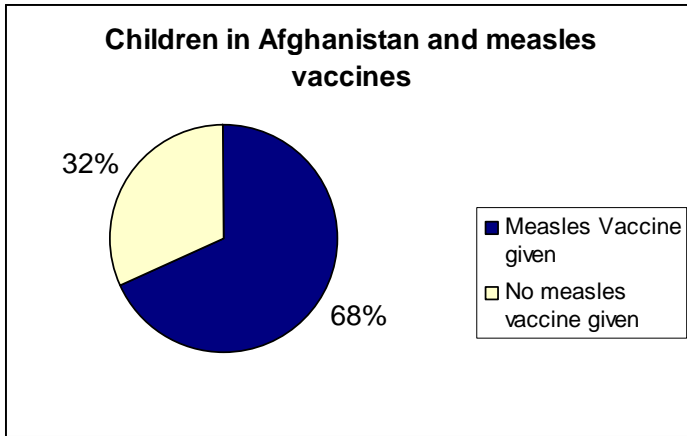
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Does your family eat iodized salt as it should? Are you in the 88% who don't, or the 12% who do?



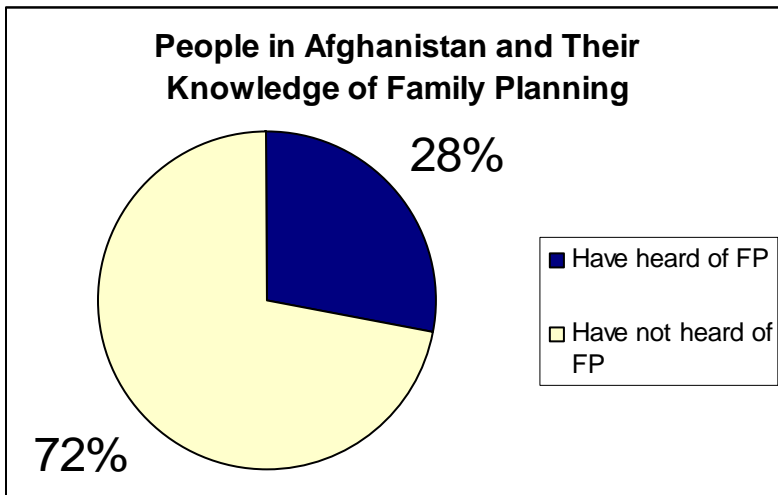
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Are my children in the 68% who have received their measles vaccine, or the 32% who have not?



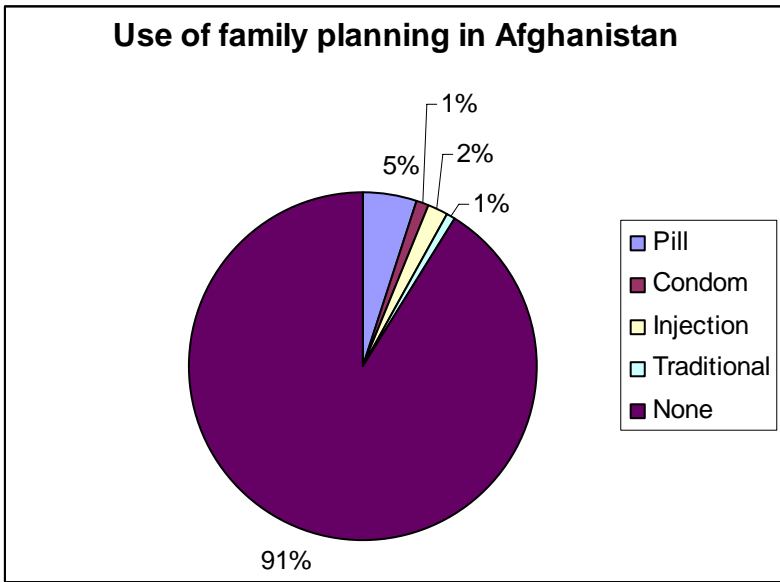
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Am I in the 28% of people who know about family planning?



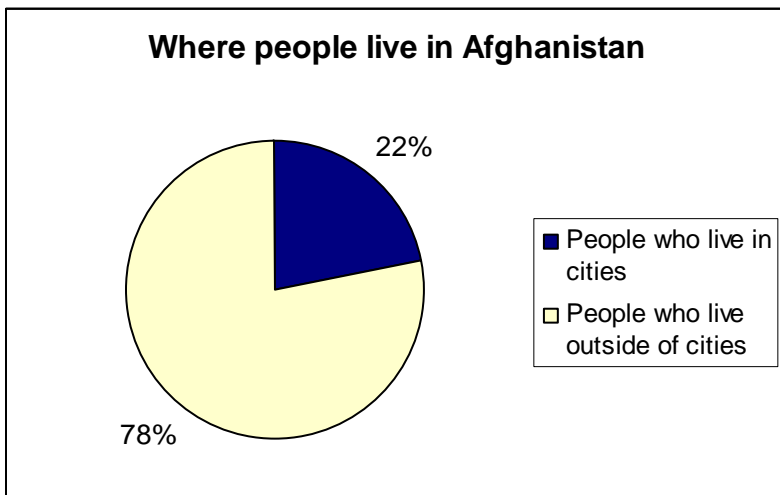
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Do my husband and I use family planning? Am I in the 91%, or the others?



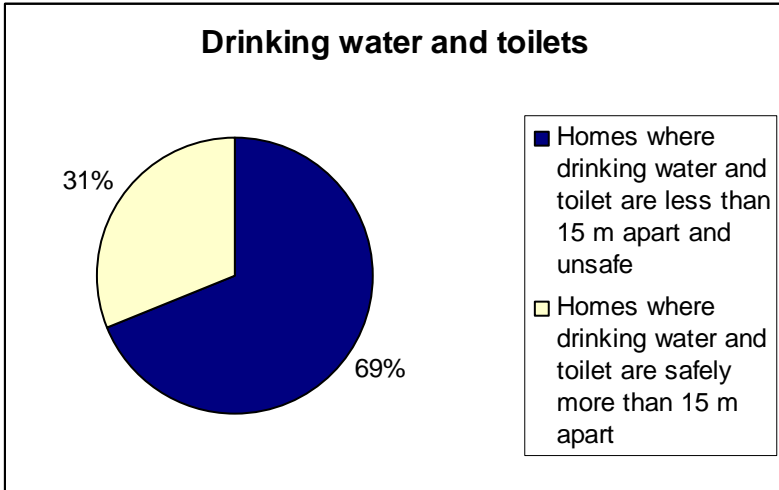
**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

Am I in the 22% who live in a city, or the 78% who live in the countryside?



**Title of the chart:**

**List of percentages:**

**Sentences telling what I learned from this chart:**

**Which part of the chart I belong to:**

At my home, am I in the group of 31% with safe water, or the 69% with unsafe water? Is my drinking water source (my well or river or spring) more than 15 meters from the toilet, so that my water is safe to drink?

**Milestone 4, Activity 8: Converting information to percents**

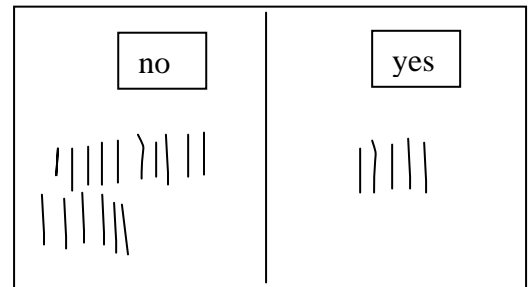
Shukria was a CHW. She was a good CHW, working hard to help her community. She had told as many people as she could about the importance of using iodized salt. But she noticed that still many children had goiter, and were not growing properly. She knew they weren't eating iodized salt.

She decided to ask the local shura to help. She wanted them to ask the local shopowners to sell only iodized salt in the village, and help make the message clear to everyone about iodized salt.

But when she went to the shura, they didn't believe her. They said that everyone was already using iodized salt, and said she was imagining things.

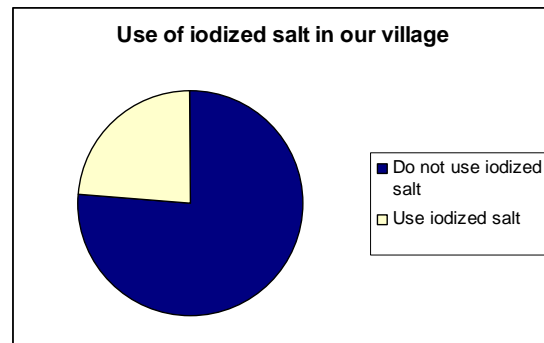
Shukria decided to prove to them that people were not using iodized salt and that they should help. One day she took a notebook and pencil and started visiting everyone in the village. She went to every house and asked every family if they used iodized salt. If they said 'yes', she made a mark on one page. If they said 'no', she made a mark on another page.

Her notebook looked like this when she was done →



She carefully counted the yes and no answers. There were 16 families that said no, they don't use iodized salt. And 5 families that said yes, they do.

Shukria saw that this meant that less than half the families use the iodized salt. This was less than 50%. She made a circle chart to show the situation:→



She showed her chart and explained it to the shura at the next meeting. They were very surprised, but now agreed that iodized salt was a problem. They listened to Shukria and agreed to meet with the shopowners and tell them to sell only iodized salt. Shukria had used percents to prove the need to solve a big problem.

There are many problems like this that people often think are not a problem.

Think about these questions:

- What percent of children (boys AND girls) in your village go to school?
- What percent of children in your village get the vaccines they need?
- What percent of women in the village get a tetanus vaccine?

- What percent of people in the village have safe clean water to drink?
- What percent of children in your village get enough food to eat?
- What percent of women in your village eat enough vegetables when they are pregnant?

The perfect answer to these questions would be “100%”. If 100% of children went to school, if 100% of children had their vaccines, if 100% of people had clean water to drink, then the health of people would be much better.

Are the answers to these questions in your village less than 100%?

In small groups, discuss life in your village, and what aspects of life are less than 100%.

How can you find out the answers, like Shukria did in her village?

***Try to identify a problem, and find a way to get information to make it into a percentage. Once you have information about a problem, you can begin to find the causes. Then you can begin to find a solution.***

***With your group, make a plan for how to solve a problem in your village.***

A problem in our village:

How we can get information about the problem as percents:

Ideas for solving the problem: