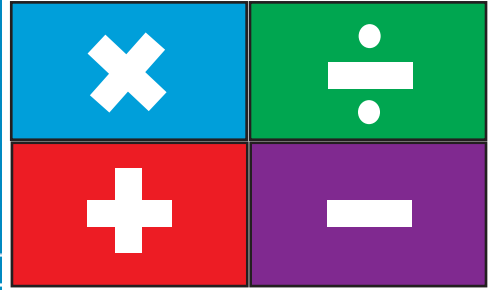
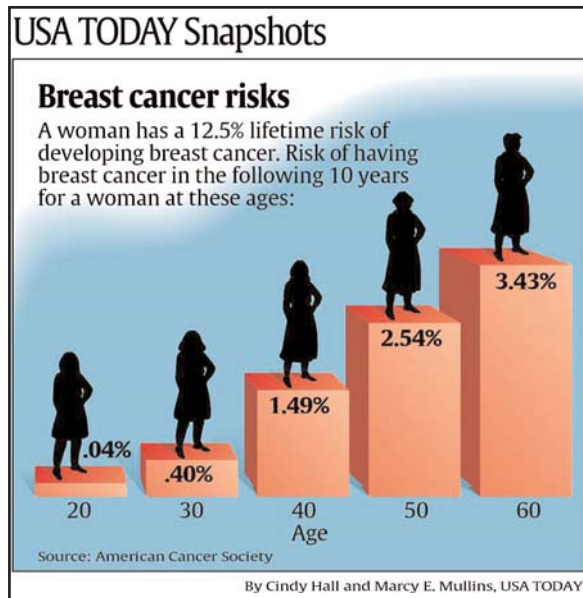


Math TODAY™

Student Edition



Breast Cancer Risks



Focus Questions:

- For a woman, what is the risk at age 70 of developing breast cancer in the next ten years?
- What is the age of a woman who has a risk factor of 1.75%?
- According to the mathematical model, during what 5-year period does the risk of breast cancer seem to be increasing fastest?

Activity Overview:

The USA TODAY Snapshot® pictured above shows the risks of developing breast cancer for women at various ages. You will investigate the data graphically and find a mathematical function to model the data set. Assuming that the trend continues you will use the model to predict the risk of breast cancer for ages that are not shown.

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This activity was created for use with
Texas Instruments handheld technology.

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Procedure:

1. Create a scatter plot from the USA TODAY Snapshot data. Enter the data in two lists, L1 and L2.
2. What mathematical function will be used to model the scatter plot?

3. Use the regression capabilities of the handheld to determine the mathematical model for the data. Record your model below:

4. Use the model you found above to answer:
For a woman, what is the risk at age 70 of developing breast cancer in the next ten years.

At 45? _____
5. What is the age of a woman who has a risk factor of 1.75%?

6. According to the mathematical model during what 5-year period does the risk of breast cancer seem to be increasing fastest?

Activity Extensions:

- Look through USA TODAY's coverage of health, science and behavior in today's Life section. Before choosing an article, divide a sheet of paper into four columns labeled: "What I know (about this topic);" "What I want to know;" "What I learned;" "Why this information is important to me."

Choose an article, and read only the headline and subheading. Then, fill in five facts that you know about the subject, and list five new bits of information you would like to learn. As you read the article, fill in at least five new pieces of knowledge you learn. Next to each, jot down why each fact is important. Finally, assess how many of your "What I want to know" statements were answered by the article. Research the answers to those you still want to know more about.

Data Source:

American Cancer Society

Materials:

- TI-83 Plus or
TI-83 Plus Silver Edition

Additional Information:

- USA TODAY.com
(www.usatoday.com)
- American Cancer Society
(www.americancancer.com)