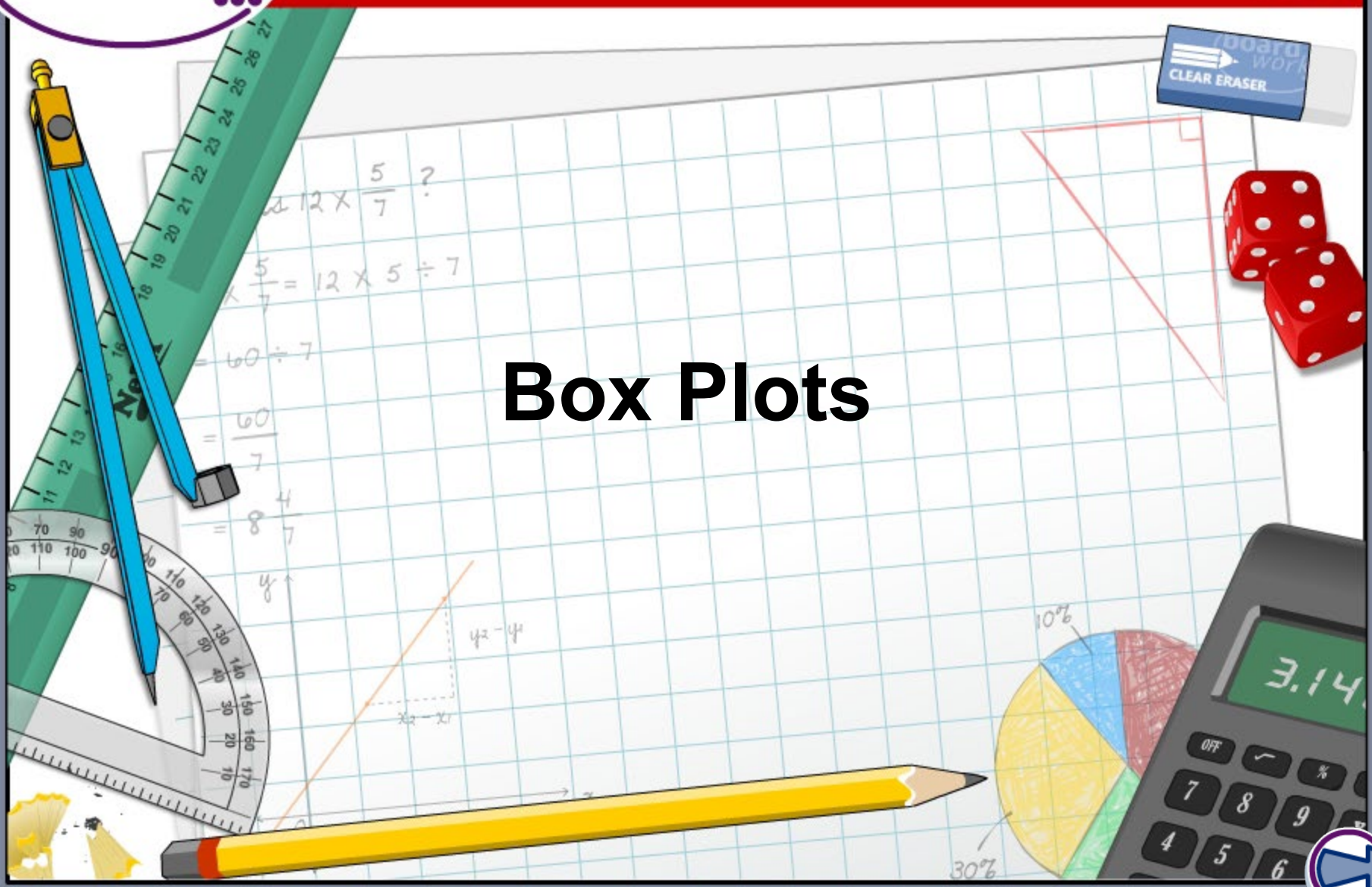

Box Plots

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Information

Common core icons

This icon indicates a slide where the Standards for Mathematical Practice are being developed. Details of these are given in the Notes field.

Slides containing examples of mathematical modeling are marked with this stamp.

This icon indicates an opportunity for discussion or group work.

The **Standards for Mathematical Practice** outlined in the Common Core State Standards for Mathematics describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

These are:

1) Make sense of problems and persevere in solving them.

2) Reason abstractly and quantitatively.

3) Construct viable arguments and critique the reasoning of others.

4) Model with mathematics.

5) Use appropriate tools strategically.

6) Attend to precision.

7) Look for and make use of structure.

8) Look for and express regularity in repeated reasoning.

This icon indicates that the slide contains activities created in Flash. These activities are not editable.

This icon indicates teacher's notes in the Notes field.

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Statistics word review

Match each term to its definition

m

max

me

ra

minimum

the average of a data set

What words can we use to describe data?

Press **start** to review some commonly used terms.

start

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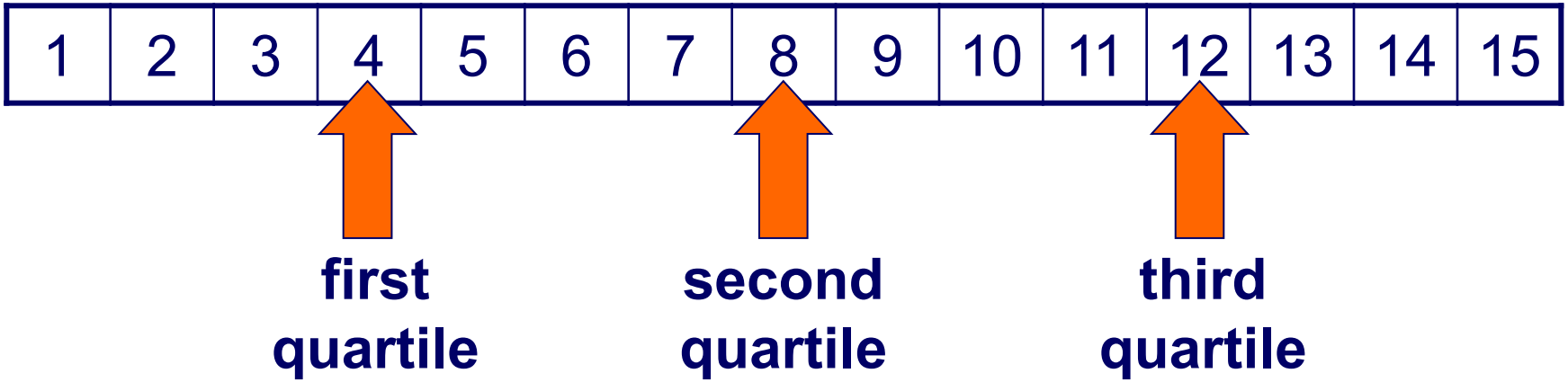
Quartiles

Another important term is **quartile**. You can think of quartiles as the values that divide an ordered data set into **quarters**.

Each quartile contains one-fourth of the data.



The second quartile is the **same** as the **median**.

How many values are in each of these quartiles?

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Introducing box plots

A **box plot**, or box and whisker plot, is a simple diagram that displays five important measures of a data set.

Can you label this box plot to show the location of each measure?

Press **start** to begin.

start

What do you think the width of the box shows?

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Interpreting box plots

Can you answer these questions about box plots?

Press **start** to begin.

start

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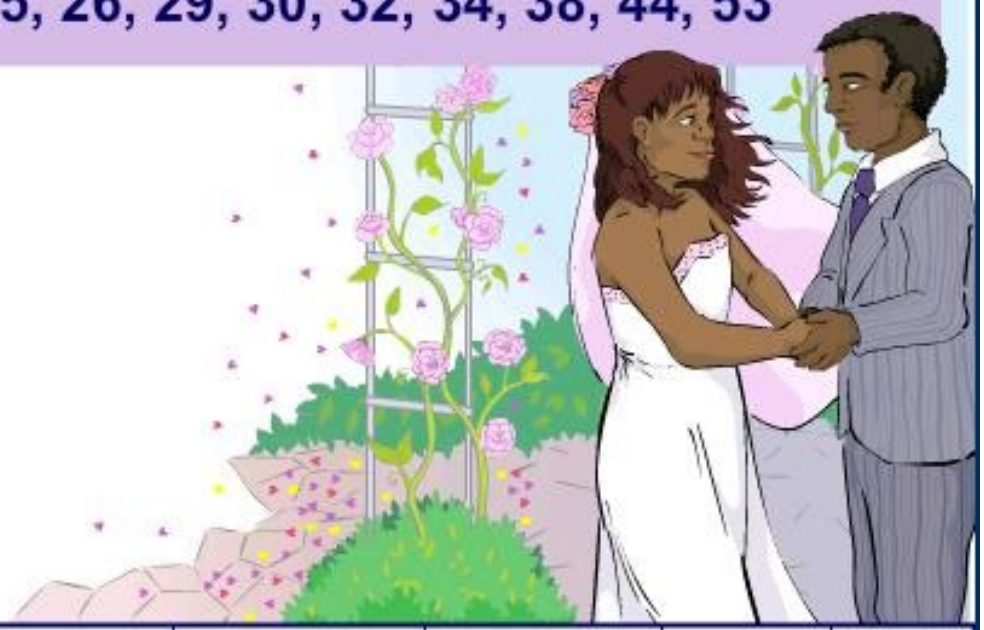
Marriage records at City Hall

The ages of the people who got married in Madison's town in April, 2012 are shown below. Display this data in a box plot.

18, 20, 20, 22, 23, 23, 25, 26, 29, 30, 32, 34, 38, 44, 53



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Comparing fish catches

Bluefin tuna are very large fish that live in the Atlantic Ocean.

The table shows the weights of individual tuna caught in three different years. Display this data using three box plots.

year	weight (kilograms)								
1995	34	58	70	150	110	30	44	62	40
2001	95	39	44	24	32	78	38	42	58
2010	42	50	72	26	32	30	37	40	54

What conclusions can you make?

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