⚖ Pan Balance

Comparing Numbers

You can compare values on a balance scale.

- The workspace provides a pan balance that can be used to compare two or more numbers.

- Drag numbers onto each side of the balance to see how they compare. The *x*-block can be used to introduce a balanced equation.

Practice Using a Pan Balance to Compare Numbers

1 Click and drag numbers onto each side of the scale to make an equation. Drag 1 and 3 into the left pan and drag 3 and 5 into the right pan.

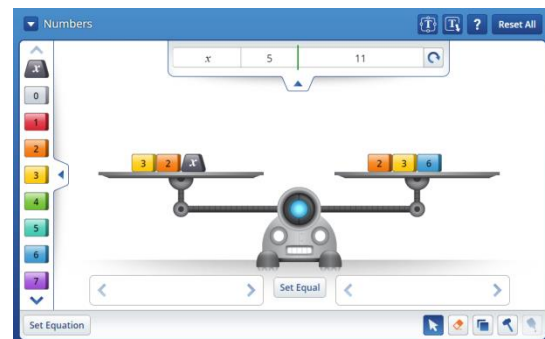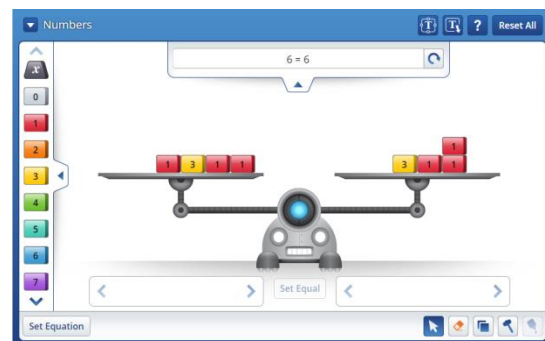- The odometer shows the inequality statement.

2 Use 🔨 to break apart the 5 in the right pan into 5 ones. Move cubes between pans to make the sides equal. Notice this turns the inequality into an equation.

- Use **Reset All** to clear the balance and start over.

3 Introduce a variable by using the *x*-block from the menu on the left.

- Drag *x* onto the left side of the balance and 6 as a value for *x* onto the other side. Use **Set Equal** to set the variable equal to that value.

- Now, drag equal or unequal values to both sides of the scale to demonstrate balanced and unbalanced equations. Click the ↻ odometer to see the equation as a bar model.

Pan Balance

Comparing Symbols

You can compare shapes that have been randomly assigned different values. To get to the Symbols mode, click ▼ to see the drop-down menu and select **Symbols**.

- The one-part workspace provides a balance that can be used to compare two or more shapes of unknown weight.
- Drag symbols/shapes onto each side of the balance to see how they compare.

Practice Comparing Numbers

1 Drag a heart onto one side of the balance and a square onto the other.

   - Compare the weights of each shape.

2 Drag more squares onto the pan balance until the sides are equivalent.

3 Next, find how many squares would be equivalent to one circle.

4 You can use the balance to order the weights of each shape from least to greatest.

5 Click 🔲 to type the values of the shapes as you find them. If you are correct, you will see a ✔ next to the shape.

Guess Values   ✕

●	=	☐	✗
⭐	=	1	✔
▭	=	☐	✗
❤	=	☐	✗
⬡	=	☐	✗
▲	=	☐	✗

- Anytime you want to compare symbols using different values, use **Reset All** to clear the balance and start over.