

Name _____ Date _____



Skills Maintenance

Balanced Scales

Activity 1

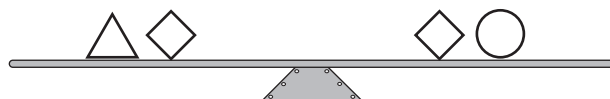
Use cancellation and the balance scales to find the value of a certain shape in each problem.

Model

What is the value of \triangle in the scale?

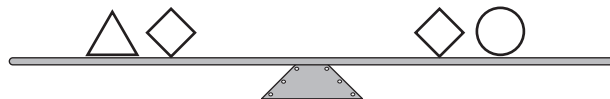
$\triangle = \square$

1. What is the value of \triangle in the scale?



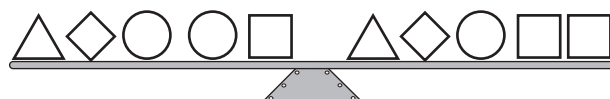
$\triangle = \underline{\hspace{2cm}}$

2. What is the value of \circ in the scale?



$\circ = \underline{\hspace{2cm}}$

3. What is the value of \square in the scale?



$\square = \underline{\hspace{2cm}}$



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 **Apply Skills**
Equations With Variables

Activity 1

Solve the equations using special symbols and properties. Check your answer by substituting the value of the variable back into the original equation. Remember that gray symbols represent negatives.

Model

$$x + 3 = 5$$

Represent the problem using special symbols:

$$\nabla + \text{NNN} = \text{NNNNN}$$

Add the inverse of 3 to each side to get the variable alone:

$$\nabla + \text{NNN} + \text{NNN} = \text{NNNNN} + \text{NNN}$$

Cancel inverses since they equal 0:

$$\nabla + \cancel{\text{NNN}} + \cancel{\text{NNN}} = \cancel{\text{NNNNN}} + \cancel{\text{NNN}}$$

Write the special symbols that are left:

$$\nabla = \text{NN}$$

Write use variables and numbers: $x = 2$

1. $y - 5 = 4$ Show your work here:

Check your answer here: _____

2. $z + 3 = -2$ Show your work here:

Check your answer here: _____

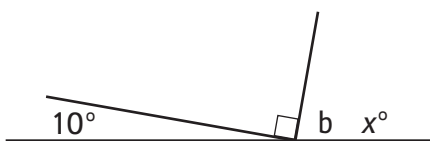
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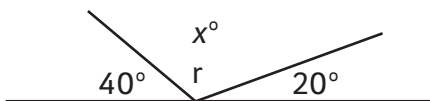
Problem-Solving Activity
Determining Measurements of Angles

Use algebraic equations to find the missing angle measurements in each problem. Be sure to show all of your work.

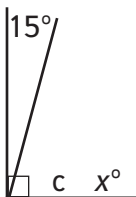
1. What is the measure of $\angle b$? _____



2. What is the measure of $\angle r$? _____

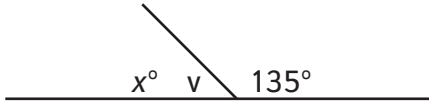


3. What is the measure of $\angle c$? _____



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4. What is the measure of $\angle v$? _____



5. What is the measure of $\angle j$? _____

