Unit 6 Lesson 3: Staying in Balance
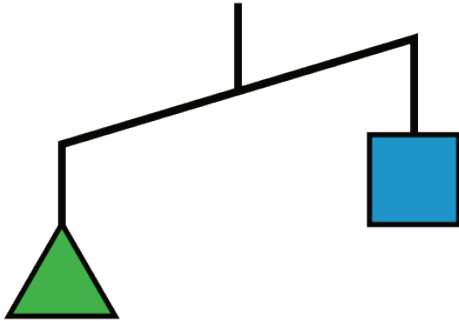
1 Hanging Around (Warm up)
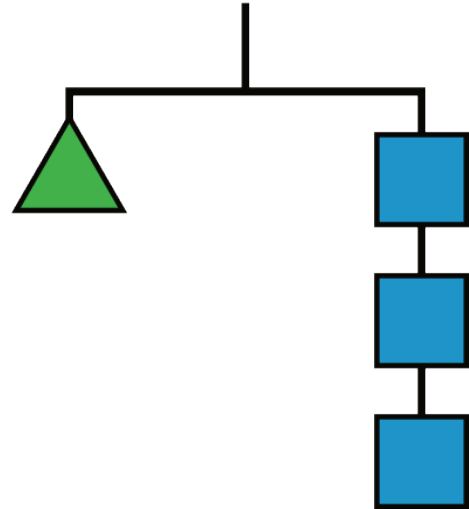
Images for Launch

Student Task Statement

A

B

For diagram A, find:

1. One thing that *must* be true

2. One thing that *could* be true or false

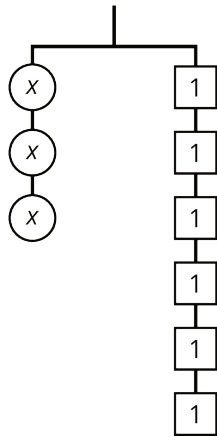3. One thing that *cannot possibly* be true

For diagram B, find:

1. One thing that *must* be true

2. One thing that *could* be true or false
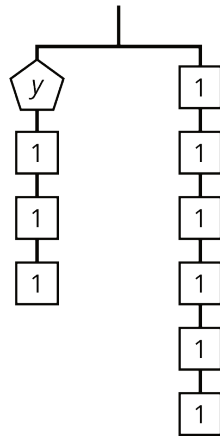
3. One thing that *cannot possibly* be true

2 Match Equations and Hangers
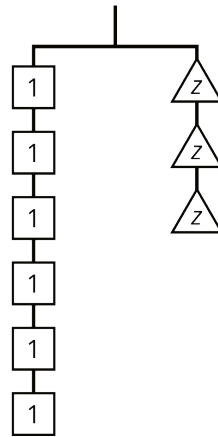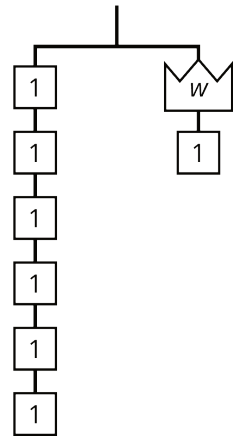
Student Task Statement

A   B   C   D

1. Match each hanger to an equation. Complete the equation by writing x, y, z, or w in the empty box.

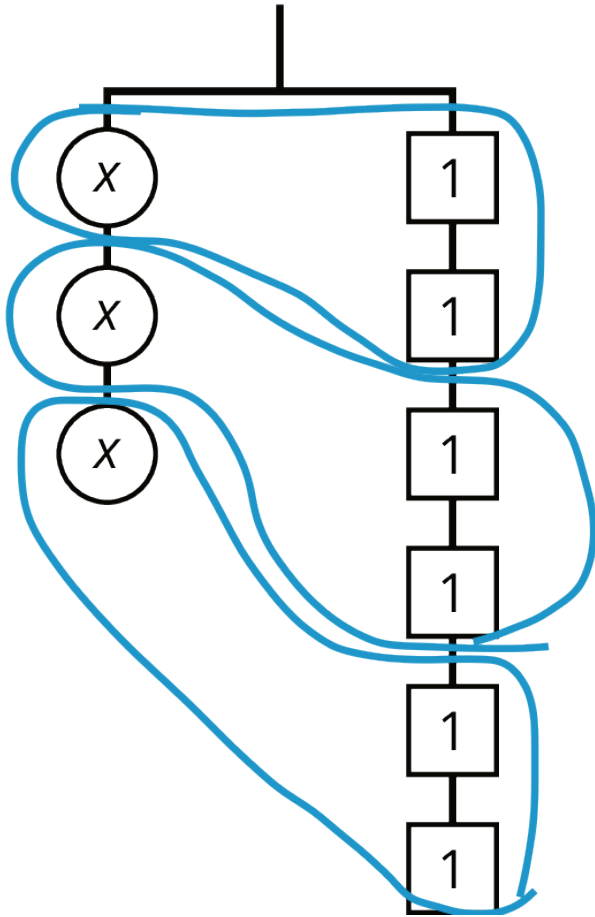$$\square + 3 = 6 \qquad 3 \cdot \square = 6 \qquad 6 = \square + 1 \qquad 6 = 3 \cdot \square$$
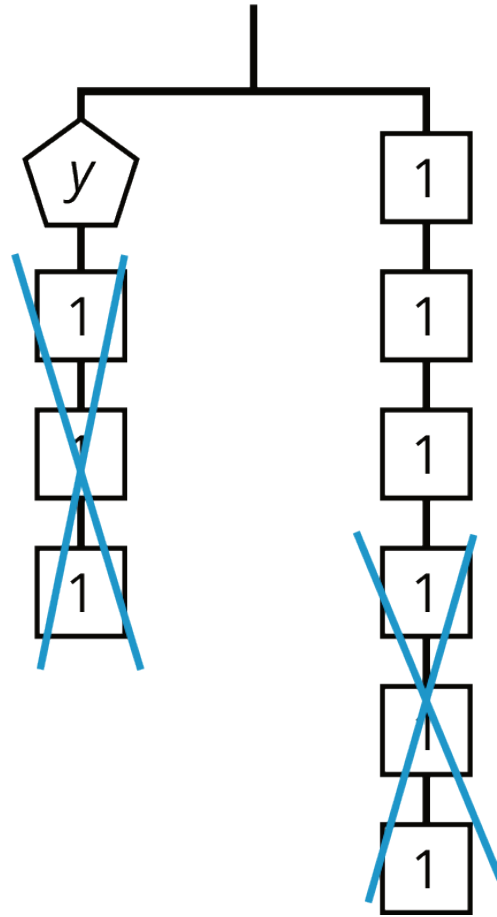
2. Find a solution to each equation. Use the hangers to explain what each solution means.
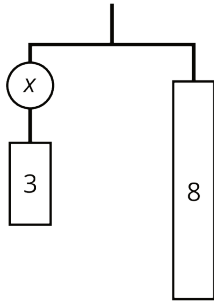
Activity Synthesis

A

B

3 Connecting Diagrams to Equations and Solutions
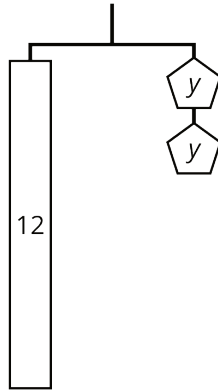
Student Task Statement

Here are some balanced hangers. Each piece is labeled with its weight.
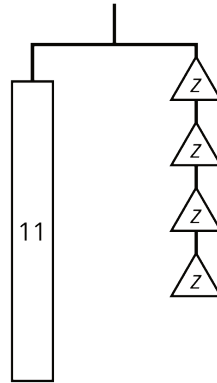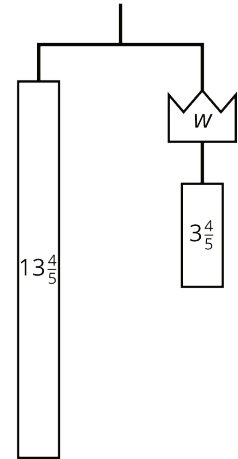
A   B   C   D

For each diagram:

1. Write an equation.

2. Explain how to reason with the *diagram* to find the weight of a piece with a letter.

3. Explain how to reason with the *equation* to find the weight of a piece with a letter.