NAME DATE PERIOD

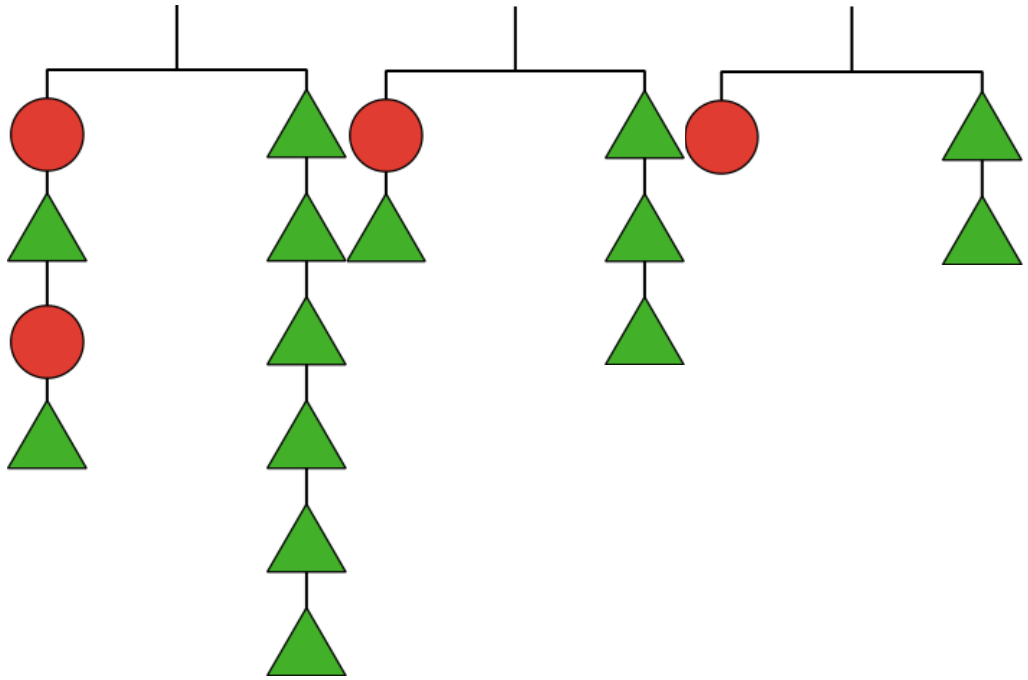
Student Workbook

Lesson 6: Equality Diagrams

Let's use hanger diagrams to understand equivalent equations.

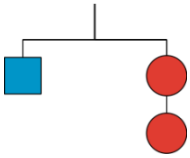
6.1 : Notice and Wonder: Solving Equations

What do you notice? What do you wonder?

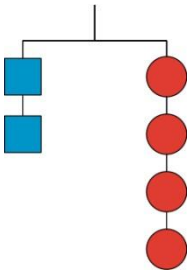


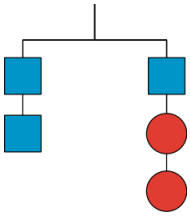
NAME DATE PERIOD

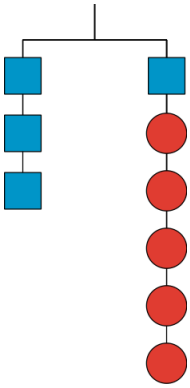
6.2 : Hanger Diagrams

1. 

The hanger with 1 square and 2 circles is in balance.
Which of these should also be in balance? Explain your reasoning.

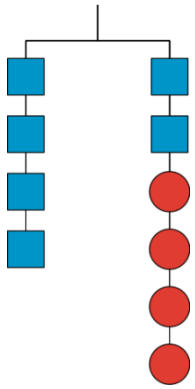
a. 

b. 

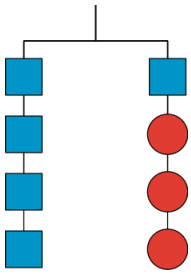
c. 

NAME DATE PERIOD

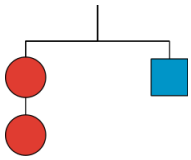
d.



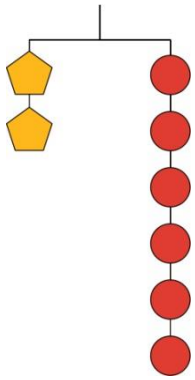
e.



f.



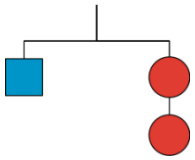
2. This hanger containing 2 pentagons and 6 circles is in balance. Use the hanger diagram to create two additional hangers that would be in balance.



NAME DATE PERIOD

6.3 : Diagrams and Equations

In the previous activity, each square weighs 10 pounds and each circle weighs x pounds.



So, this diagram could be represented by the equation. $10 = 2x$

1. Use each of the 6 hanger diagrams containing squares and circles from the previous activity to write an equation that represents the weights on the hanger.

   a.

   b.

   c.

   d.

   e.

   f.

2. Solve each equation.

   a.

   b.

   c.

   d.

   e.

   f.

NAME DATE PERIOD

3. Compare the solutions to the equations with the answers from the previous activity. What do you notice?