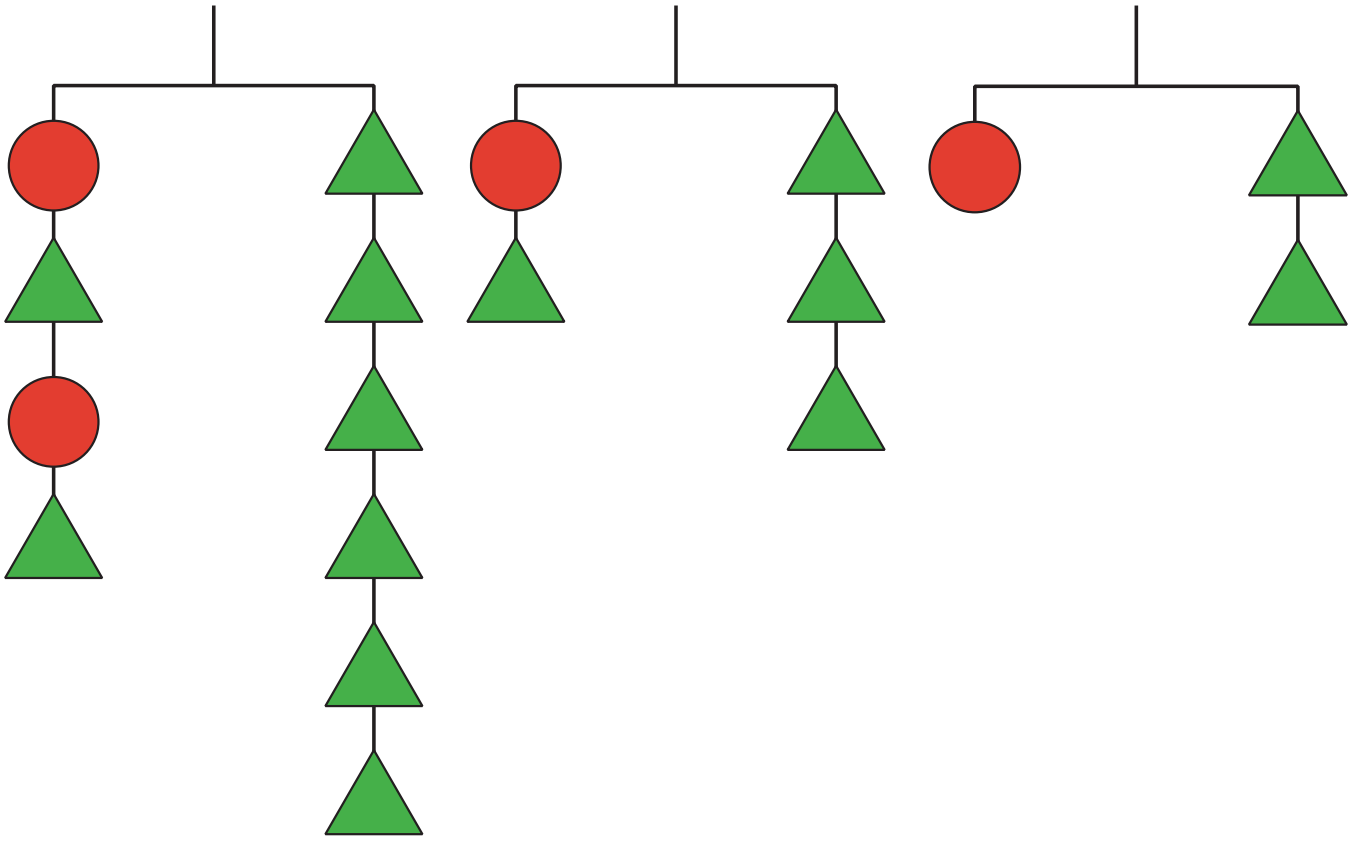
Unit 2, Lesson 6

Equality Diagrams

Let's use hanger diagrams to understand equivalent equations.

6.1 Notice and Wonder: Solving Equations

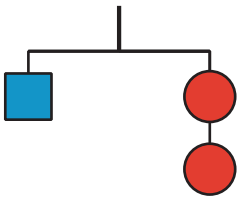
What do you notice? What do you wonder?



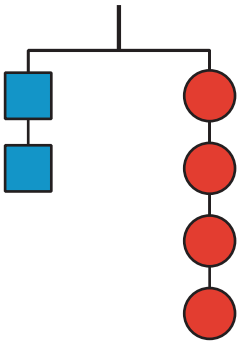
6.2 Hanger Diagrams

1. The hanger with 1 square and 2 circles is in balance.

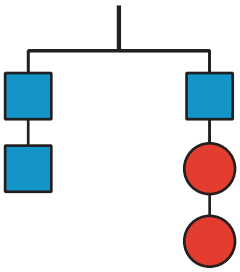
   Which of these should also be in balance? Explain your reasoning.



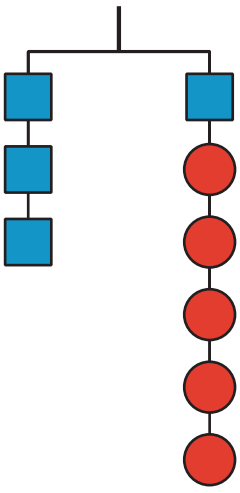
a.



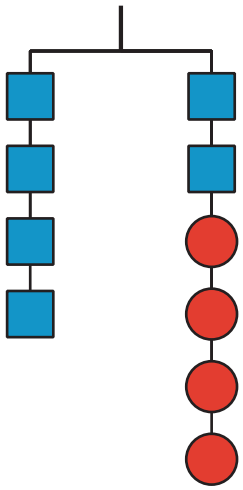
b.



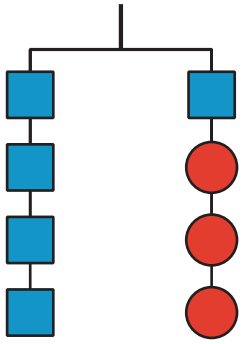
c.



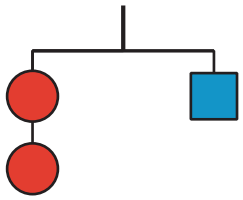
d.



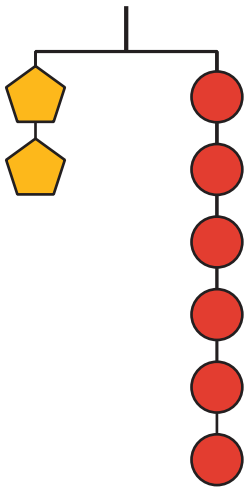
e.



f.

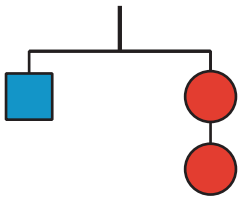


2. This hanger containing 2 pentagons and 6 circles is in balance. Use the hanger diagram to create two additional hangers that would be in balance.



6.3 Diagrams and Equations

If each square weighs 10 pounds and each circle weighs x pounds, then this diagram could be represented by the equation $10 = 2x$.



1. Use these weights and each of the 6 hanger diagrams containing squares and circles from the earlier activity about balancing hangers, and write an equation that represents the weights on each hanger.

   a.

   b.

   c.

   d.

   e.

   f.

2. Solve each equation.

   a.

   b.

   c.

   d.

   e.

   f.

3. Compare the solutions to the equations with the answers from the earlier activity about which hangers were balanced. What do you notice?