Math Bomb V

Contents

Welcome to MATH BOMB. This is a fun, interactive mathematics experience where students defuse a bomb. This package includes 4 components:

1. Bomb Video: The bomb video can be found at this link. The timer is set at 40 minutes. The activity can take shorter or longer depending on the group of students you are working with.
2. Answer Sheets: Has prompts to guide students through the bomb defuse.
3. Manual: Printable instructions to defuse the bomb.
4. Solutions: A filled in answer sheet for reference.

This bomb is intended for grade 9+ students. Below is a brief description of some mathematics concepts that are required to defuse this bomb:

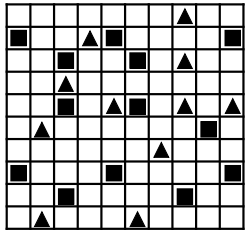
- Systems of linear equations.
- Problem solving using ratios.
- Algebra.
- Logic and Reasoning.

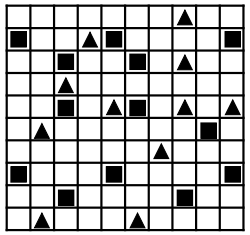
Draw the **exact** weights that are put the scale.

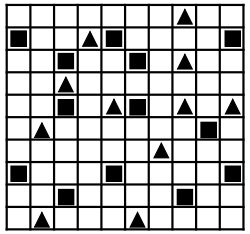
Write the amount of each mixture that is poured into funnel.

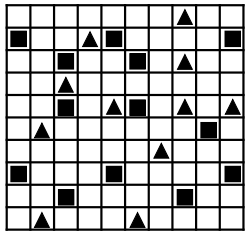
Write each value that is inputted

Write the component **letters/numbers**

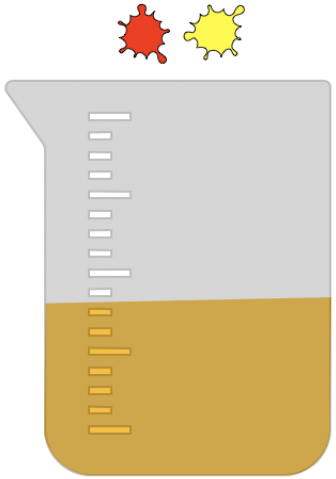




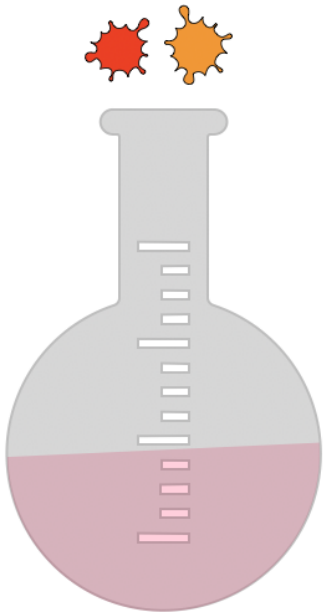




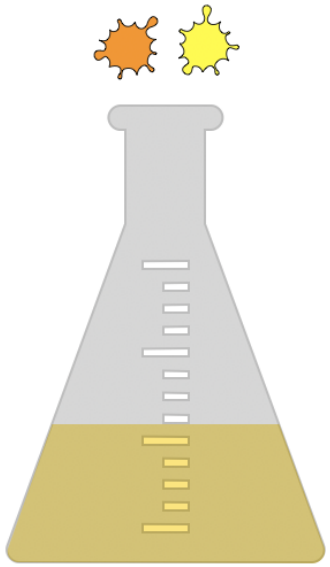
There is a funnel on the side of the bomb where exactly 240 ml of defusal mixture must be poured. The mixture must contain orangenium-117, rednuim-520, and yellowdasium-450 in the ratio 5:6:5. You have the three mixtures below at your disposal.



Solution A: Contains rednuim-520, and yellowdasium-450 in *some ratio*.

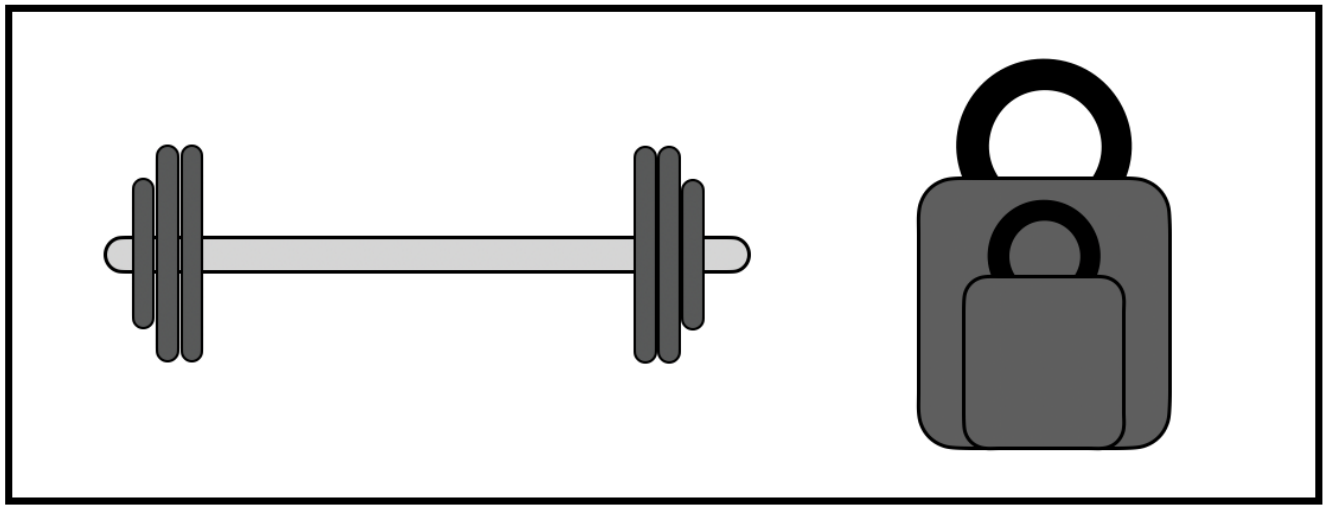


Solution B: Contains rednuim-520, and orangenium-117 in *some ratio*.



Solution C: Contains orangenium-117, and yellowdasium-450 in *some ratio*.

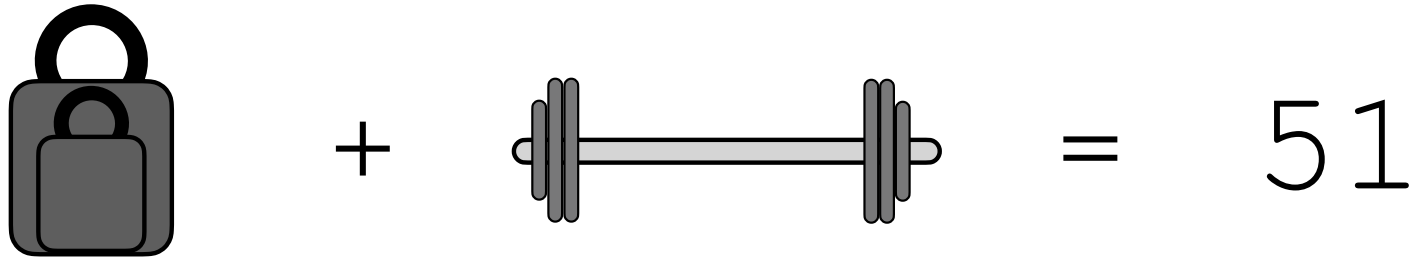
There is a scale atop the bomb that must have **exactly** 37 kg placed on it.
You only have the weights in the box below to place on the scale.

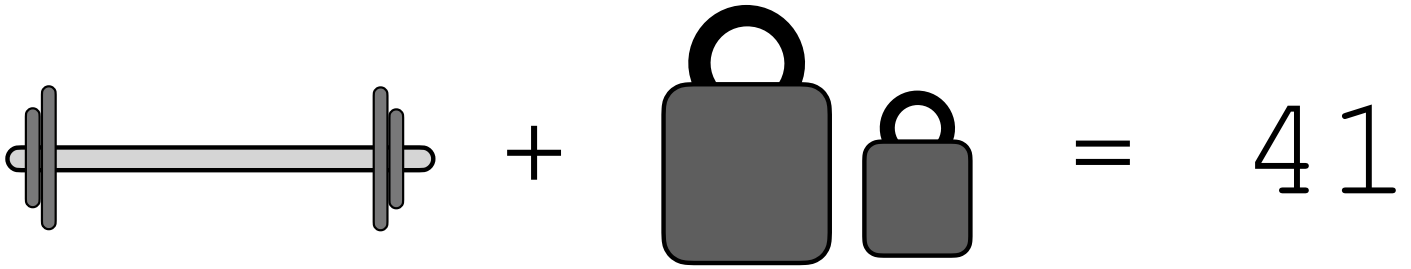


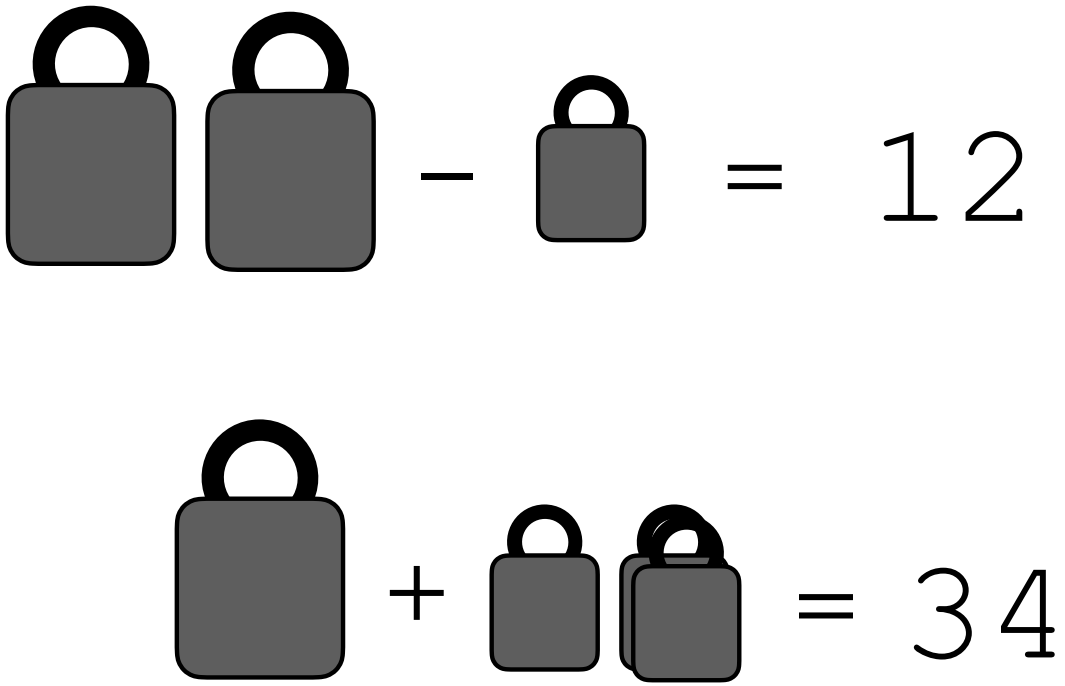
There are five components that need to be plugged into the bomb. Each component has a unique letter and number associated with it. Each component has blue, green, and purple lights with unique ratios following the diagram below:

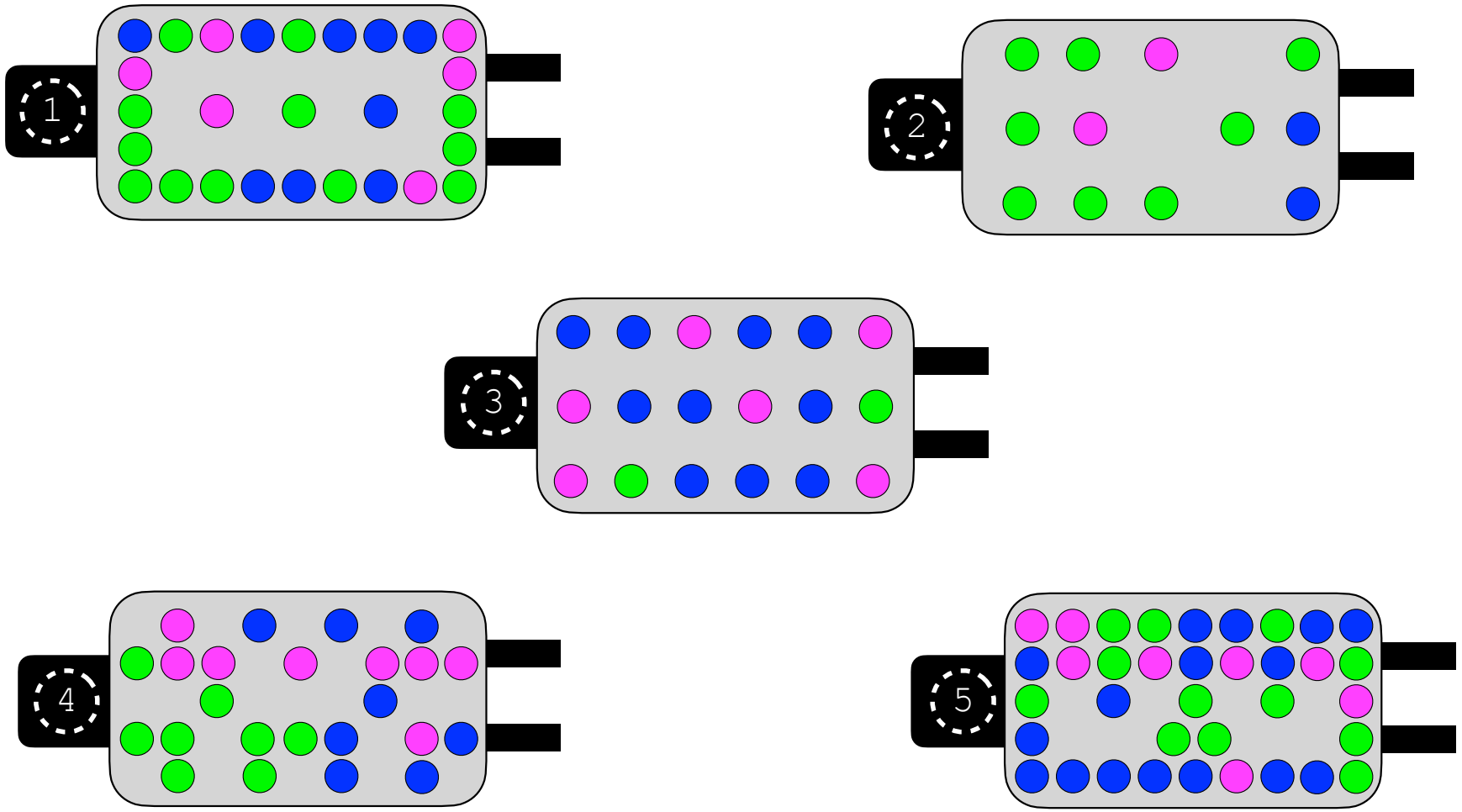
	Purple	Blue	Green
A	1	1	4
B	2	3	4
C	2	4	3
D	3	5	1
E	1	1	1

The components must also be plugged in to the correct sockets. Component C must be the second closest to the wifi router. Component A must be plugged in between two other components. Components A, B, and E do not need wifi. Component B should be directly on top of the purple socket. Component E should be plugged on the bottom. (Devices requiring wifi must be within two spaces of the router).

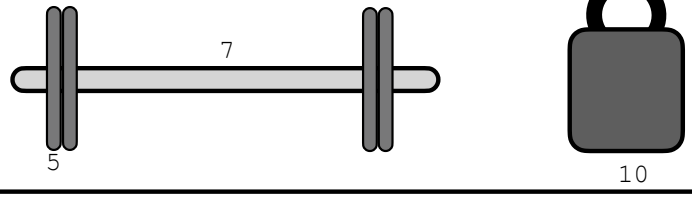

+
=
51


+
=
41


– = 12
+ = 34

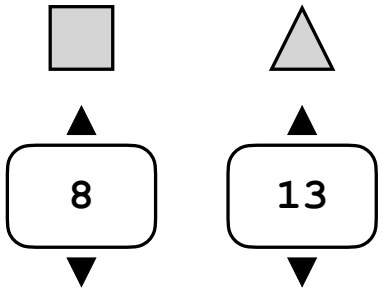

1
2
3
4
5

Draw the **exact** weights that are put the scale.



Write the amount of each mixture that is poured into funnel.

- **Solution A: 120 ml**
- **Solution B: 80 ml**
- **Solution C: 40 ml**



Write each value that is inputted

D	3
C	5
A	2
B	1
E	4

Write the component **letters/numbers**