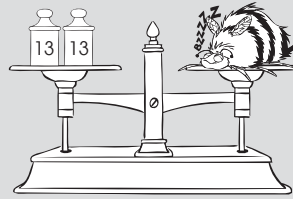




We can find an object's weight with a balance scale.

**EXAMPLE**

What is the weight of the slumberbee below?



The slumberbee is balanced with two 13-gram weights.

So, this slumberbee weighs  $13 + 13 = 26$  grams.

**PRACTICE**

96. Alex balances an elefinch with fifteen 7-gram weights. What is the weight of the elefinch? 96. \_\_\_\_\_

97. Grogg balances a 60-gram pandakeet using only 5-gram weights. How many weights does he use? 97. \_\_\_\_\_

98. Ralph balances a 85-gram pandakeet using only 5-gram weights. How many weights does he use? 98. \_\_\_\_\_



99. Lizzie balances a 27-gram octapug using only 3-gram weights. How many weights does she use? 99. \_\_\_\_\_

100. How many *more* 3-gram weights will Lizzie need to balance a 66-gram octapug than she needs to balance a 45-gram octapug? 100. \_\_\_\_\_

# SKIP-COUNTING

## Balancing Weights

### PRACTICE

- 101.**  Can you balance 15 grams using only 3-gram weights?  
If so, how many would you need? If not, why not?
- 102.**  Can you balance 27 grams using only 4-gram weights?  
If so, how many would you need? If not, why not?
- 103.** How many weights would you need to balance 18 grams using only 8-gram weights and 5-gram weights? **103.** \_\_\_\_\_
- 104.** How many weights would you need to balance 39 grams using only 11-gram and 7-gram weights? **104.** \_\_\_\_\_
- 105.** What is the **smallest** number of weights you could use to balance 40 grams using only 4-gram and 9-gram weights? **105.** \_\_\_\_\_
- 106.** What is the **smallest** number of weights you would need to balance 44 grams using only 3-gram and 7-gram weights? **106.** \_\_\_\_\_

**EXAMPLE**

What is the largest number of grams that **cannot** be balanced with only 6-gram and 11-gram weights?

We make a chart with rows of 11 and shade in the weights that we can balance:

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22
23	24	25	26	27	28	29	30	31	32	33
34	35	36	37	38	39	40	41	42	43	44
45	46	47	48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63	64	65	66

The largest weight we cannot balance is **49 grams**.

Using a chart with rows of 11 makes it easier to find all the weights we can balance.



**PRACTICE**

**107.** How many different weights **cannot** be balanced with only 2-gram and 13-gram weights?

**107.** \_\_\_\_\_

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26
27	28	29	30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49	50	51	52

**108.** What is the largest number of grams that **cannot** be balanced with only 3-gram and 7-gram weights?

**108.** \_\_\_\_\_

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35

# SKIP-COUNTING

## Balancing Weights

*In the problems below, it may help to draw a chart like those on the previous page.*

- 109.** What is the largest number of grams that **cannot** be balanced with only 5-gram and 7-gram weights? **109.** \_\_\_\_\_



- 110.** What is the largest number of grams that **cannot** be balanced with only 4-gram and 9-gram weights? **110.** \_\_\_\_\_

