Do we have enough food?

- This problem is only difficult to answer because it has a lot of parts. Finding the answer just requires subtracting and comparing fractions
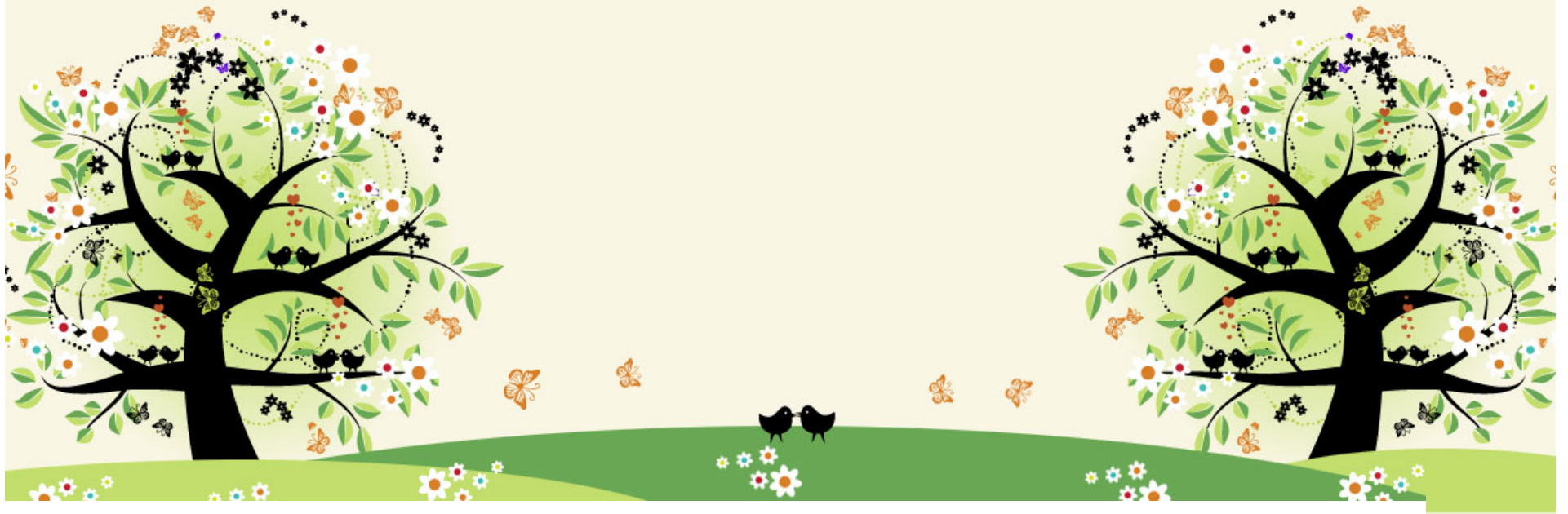
Identifying the steps in the problem

1. Find how far we have gone.
2. Subtract how far we have gone from the total distance.
3. Figure out what fraction that is of the whole.
4. Find the fraction of food we have left.
5. Compare the distance left to the food left.

Let's do a similar problem

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

It is 24 days to the deer hunting grounds.

You are here. You brought 3 carts full of food and 1 cart is empty.

Do you have enough food left to make it to the hunting grounds?

Find how far we have gone.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

It says on the number line we are at 8. So, we have traveled 8 days out of 24 days it takes to get to the hunting grounds.

2. Subtract how far we have gone from the total distance.

24 days – 8 days = 16 days

3. Figure out what fraction the remaining distance is of the whole.

$$\frac{16 \text{ days left}}{24 \text{ days total}} = \frac{2}{3}$$

3. How do you get 2/3?

Divide the top and the bottom by 8.

$16 \div 8 = 2$
$24 \div 8 = 3$

$$\frac{16 \text{ days left}}{24 \text{ days total}} = \frac{2}{3}$$

Remember this number

8 = ⅓ of 24

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
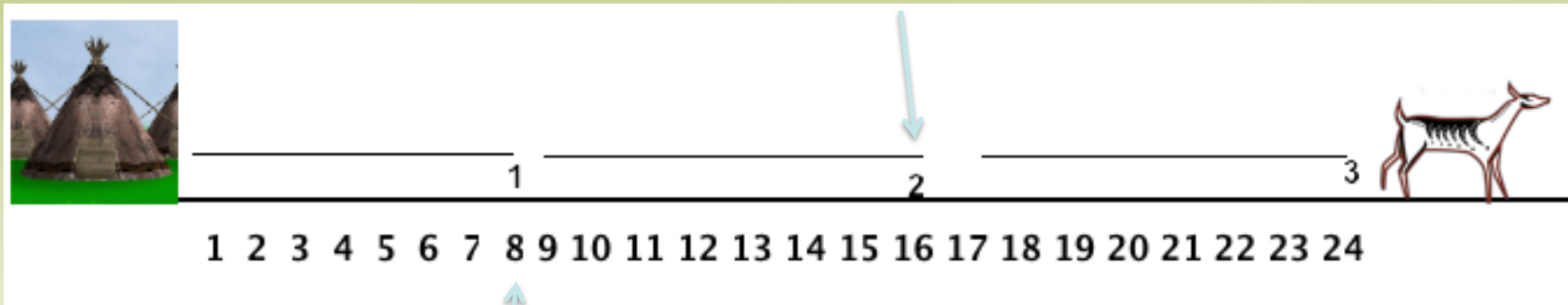
You can see that if we divided our trail into 3 parts, the first ⅓ would be 8 days of travel, ⅔ would be 16 days

4. Find the fraction of food we have left.

Let's look at the problem again

Keep remembering this number

$$\frac{2}{3}$$

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

It is 24 days to the deer hunting grounds.

You are here. You brought 3 carts full of food and 1 cart is empty.

Do you have enough food left to make it to the hunting grounds?

4. Find the fraction of food we have left.

$$\frac{2 \text{ carts left}}{3 \text{ carts total}} \quad = \quad \frac{2}{3}$$

Keep remembering this number

$$\frac{2}{3}$$

5. Compare the distance left to the food left.

$$\frac{2 \text{ carts left}}{3 \text{ carts total}} = \frac{2}{3}$$

$$\frac{16 \text{ days}}{24 \text{ days}} = \frac{16}{24} = \frac{2}{3}$$

We have 2/3 of the food left and 2/3 of the journey left

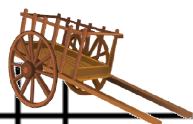# Do we have enough food left?

Yes! Because 2/3 = 2/3

Here is how it works

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

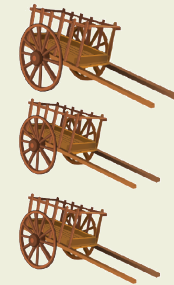# Here is how it works

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

After 16 days, you have traveled 2/3 of the distance to your destination and eaten 2/3 of your food

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

After 24 days, you've traveled 3/3 of the way - the whole distance - and eaten 3/3 of the food - all of your food

We have no food left and we've made it to the woods. Better go shoot some deer.