



**ANSWER KEY:**

1. How many fry should there be in each round pond, if we wanted all round ponds to have the same population? (Hint: go back to the total number of fish – split them up into 9 RPs)

Total population = 112,000 coho fry

Total number of RPs = 9

$$\frac{112,000 \text{ fish}}{9 \text{ RPs}} = \text{about } \mathbf{12,444 \text{ fish per round pond}}$$

2. How would **YOU** move our fish from the four round ponds into the nine total round ponds, so that each tank had the same population? What tools, instruments, gear might you need to move fish?

Brian and Haley use buckets, a scale, raingear, a net to scoop fish, and their brains to calculate!

They first fill buckets with water and put them on a scale (remembering to tare the scale before adding fish!). They add fish to calculate the average weight per fish by dividing the total weight by the number of fish in the bucket. With this information, they can figure out how much weight in fish to move to each round pond.

3. If our average size per fish was 15 grams, what is the total biomass of Coho?

Average weight = 15 grams per fish

Total number of fish = 112,000

$$\text{Total Biomass} = (15 \text{ grams}) \times (112,000 \text{ fish}) = \mathbf{1,680,000 \text{ grams}}$$

4. What is the total biomass in each tank? (15 gram fry, 28,000 in each tank?)

$$\text{Biomass per tank} = (15 \text{ grams}) \times (28,000) = \mathbf{420,000 \text{ grams}}$$

5. If you could only move 10 kgs of Coho in a bucket from one tank to the next at a time, how many buckets would it take to move 12,000 fry?

**Step 1:** convert kilograms to grams:

10 kg fish = 10,000 grams of fish per bucket

**Step 2:** calculate how many total grams of fish you need to move:

12,000 fry x 15 grams = 180,000 grams of fish to move

**Step 3:** Divide total weight of fish by the weight you can fit in one bucket:

$$\frac{180,000 \text{ grams of fish}}{10,000 \text{ grams of fish per bucket}} = \mathbf{18 \text{ buckets}}$$