MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

## DOK LEVEL 1 WORD PROBLEMS (ONE-STEP)

## Mass (Grams and Kilograms) Word Problems:

- 1. A watermelon weighs 4 kg and a bag of oranges weighs 2 kg. What is the total weight of both?
- 2. A puppy weighs 9 kg. If a kitten weighs 3 kg less, how much does the kitten weigh?
- 3. A sack of rice weighs 25 kg. If it is divided equally into 5 smaller bags, how much does each bag weigh?
- 4. A mango weighs 600 g. How much do 4 mangoes weigh together?
- 5. A school bag weighs 3.5 kg. If a student removes books weighing 1.2 kg, how much does the bag weigh now?
- 6. A package weighs 2 kg. Another package weighs 3 times as much. What is the weight of the second package?
- 7. A large box weighs 8 kg. A small box weighs 5 kg less. What is the weight of the small box?
- 8. A shipment contains 6 bags of sugar, each weighing 1.5 kg. What is the total weight?
- 9. A block of cheese weighs 850 g. How much do 3 such blocks weigh?
- 10. A watermelon and a pumpkin together weigh 12 kg. If the pumpkin weighs 7 kg, how much does the watermelon weigh?

## **Liquid Volume (Liters) Word Problems:**

- 11. A water jug holds 6 liters. If you pour out 2 liters, how much water is left?
- 12. A bathtub can hold 100 liters of water. If it currently has 75 liters, how many more liters are needed to fill it?
- 13. A juice box holds 250 ml. How much juice is in 8 boxes?
- 14. A milk container holds 4 liters. If a recipe needs 1.5 liters, how much milk will be left after cooking?

- 15. A tank has 60 liters of water. If 20 liters are used to water plants, how many liters remain?
- 16. A family drinks 12 liters of juice in a week. If they drink the same amount every day, how many liters do they drink per day?
- 17. A car's windshield washer reservoir holds 3 liters. If it is half full, how much liquid is in it?
- 18. A soda machine dispenses 1.5 liters of soda per bottle. How much soda is dispensed after filling 6 bottles?
- 19. A fish tank holds 45 liters of water. If 15 liters are removed for cleaning, how much water remains?
- 20. A lemonade stand uses 5 liters of lemonade each day. How much lemonade is used in 4 days?

## **DOK LEVEL 2 WORD PROBLEMS (MULTI-STEP)**

A watermelon weighs 3 kg and a pumpkin weighs 6 kg. After removing seeds weighing 1 kg from both combined, what is the final total weight of the fruits?

A box of flour weighs 9 kg. A recipe uses 4 kg. Then another recipe uses 2 kg. How much flour is left in the box?

A jug holds 10 liters of juice. You pour 3 liters into one container and 4 liters into another. How much juice remains in the jug?

A sack of potatoes weighs 15 kg. You split it equally into 5 smaller bags. One bag is used in a recipe that requires 2 kg. How much is left in that bag?

You bought 3 water bottles, each holding 2 liters. You used 4 liters to water plants. How much water is left in all the bottles?

A delivery truck is loaded with 12 bags of rice. Each bag weighs 3 kg. If 5 bags are delivered to one store and 3 to another, how many kilograms of rice are left in the truck?

A fish tank holds 80 liters of water. You take out 30 liters for cleaning and then refill it with 20 liters. How much water is now in the tank?

You have 3 containers. One holds 2 liters, another 4 liters, and another 6 liters of milk. If 8 liters are used in recipes, how much milk is left total?

You bought 3 kg of apples, 5 kg of bananas, and 2 kg of oranges. If you gave away 4 kg of fruit to a friend, how much do you have left?

A water cooler holds 18 liters. You fill 6 water bottles, each with 2 liters. How many liters are left in the cooler?

A box of sugar weighs 10 kg. You use 3 kg for baking and 4 kg for another recipe. Then you buy another 5 kg of sugar. What is your total sugar now?

A juice machine dispenses 3 liters per use. You use it 3 times, then pour out 2 liters. How much juice remains from what you dispensed?

A child carries a backpack with books weighing 7 kg and a lunchbox weighing 3 kg. If the child removes two books weighing 4 kg total, what is the new weight of the backpack?

A chef uses 4 kg of flour in the morning and 6 kg in the afternoon. He then buys another 5 kg. How much flour does he have now in total?

A water storage tank has 60 liters of water. 20 liters are used in the morning, and 15 liters in the evening. The next day, 25 liters are added. What is the new total?