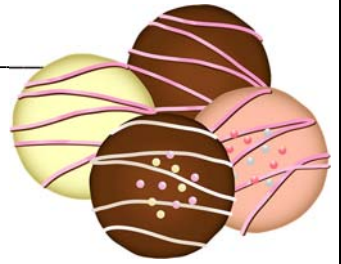


Name \_\_\_\_\_



## The Sweet Science of Chocolate

Deep inside the Great Chocolate Factory, workers are busy weighing cocoa, sugar, and chocolate bars for new recipes. Each batch must be perfectly measured - even a few grams off can ruin the mix! Use math and algebra to help the chocolatiers balance their ingredients and fix their measurement mix-ups.

- 1) A bowl of melted chocolate weighs  $x$  kg. After using 5 kg for molds, 12 kg remain. Find  $x$ .
- 2) Each chocolate bar weighs 150 g. How much does a box of 12 bars weigh?
- 3) A bag of sugar weighs 8 kg more than the cocoa powder bag. If the sugar bag weighs 23 kg, how heavy is the cocoa powder bag?
- 4) The factory divides 45 kg of almonds evenly into  $x$  containers. If each container holds 9 kg, find  $x$ .
- 5) A batch of truffles weighs 72 kg in total. If each tray holds  $x$  kg, and there are 8 trays, find  $x$ .
- 6) The mixer holds  $x$  kg of ingredients. After adding 12 kg of sugar and 18 kg of cocoa, it's full at 60 kg. Find  $x$ , the mass of other ingredients.
- 7) A crate of cocoa beans is 4 times heavier than a crate of sugar. Together, they weigh 100 kg. Write and solve an equation to find the weight of each crate.
- 8) A shipment of chocolate chips weighed 240 kg. After packing 5 equal boxes, 15 kg remained. Find the weight of one box.
- 9) A jar of caramel weighs 1.8 kg. The chocolate jar is  $x$  kg heavier, for a total of 4.5 kg. Find  $x$ .
- 10) A quality check found that  $x$  kg of cocoa powder spilled from a 90 kg bag, leaving 76 kg. Find  $x$ .