Fraction word problems

Grade 5 Word Problems Worksheet

Carlo’s brothers have been managing their family bakery for 12 years.

1. Bettina’s mother bought a strawberry cake from the bakery for the celebration of her daughter’s graduation. Bettina took \( \frac{2}{7} \) of the cake and \( \frac{1}{3} \) liter of juice from the refrigerator. Her brother Edison took \( \frac{1}{5} \) more of the strawberry cake than Bettina. What part of the cake did Edison take? What part of the strawberry cake was left?

2. In the bread display rack at the bakery, the 2 cashiers listed that \( \frac{1}{4} \) of the pastries sold that day were croissants, \( \frac{2}{7} \) were doughnuts, \( \frac{3}{14} \) were macarons, and the rest were still in the bread display rack. What part of the pastries in the bread display rack had been sold?

3. Carlo noticed that there was \( \frac{4}{5} \) of a sack of sugar and \( \frac{7}{8} \) of a sack of skimmed milk powder in the storage room. The next day, he used \( \frac{1}{3} \) of a sack of sugar. What fraction of a sack of sugar was left in the storage room?
4. It was a busy day inside the bakery. \( \frac{1}{27} \) of the people inside were the chef baker, \( \frac{2}{9} \) were the bakery assistants, and the rest were customers. What part of the people inside were customers?

5. Chef Joe bought a bottle of vegetable oil that was \( \frac{8}{9} \) full. He used it in his bulk order of pastries yesterday, and \( \frac{1}{3} \) of the vegetable oil is left in the bottle. What part of the vegetable oil was used yesterday?

6. There were two same-size pizzas in the oven. The Hawaiian pizza was cut into 8 equal slices, and there were 3 slices sold. The ham and cheese pizza was cut into 6 equal slices and had 1 slice left. What fraction of pizza was left in the oven?
Answers

1. \( \frac{2}{7} + \frac{1}{5} = \frac{10+7}{35} = \frac{17}{35} \)
   Edison took \( \frac{17}{35} \) of the strawberry cake. Bettina took \( \frac{2}{7} \) or \( \frac{10}{35} \).

   \( \frac{17}{35} + \frac{10}{35} = \frac{27}{35} \) was eaten. \( \frac{35}{35} - \frac{27}{35} = \frac{8}{35} \)

   There was \( \frac{8}{35} \) of the strawberry cake left.

2. \( \frac{1}{4} + \frac{2}{7} + \frac{3}{14} = \frac{7+8+6}{28} = \frac{21}{28} = \frac{3}{4} \)

   \( \frac{3}{4} \) of the pastries in the display rack had been sold.

3. \( \frac{4}{5} - \frac{1}{3} = \frac{7}{15} \)

   \( \frac{7}{15} \) of a sack of sugar was left in the storage room.

4. \( 1 - (\frac{1}{27} + \frac{2}{9}) = 1 - \frac{1+6}{27} = 1 - \frac{7}{27} = \frac{27}{27} - \frac{7}{27} = \frac{20}{27} \)

   \( \frac{20}{27} \) of the people in the bakery were customers.

5. \( \frac{8}{9} - \frac{1}{3} = \frac{8-3}{9} = \frac{5}{9} \)

   \( \frac{5}{9} \) of the vegetable oil was used yesterday.

6. \( \frac{5}{8} + \frac{1}{6} = \frac{30+8}{48} = \frac{38}{48} = \frac{19}{24} \)

   There was \( \frac{19}{24} \) of pizza left in the oven.