Fraction word problems

Grade 5 Word Problems Worksheet

An aquarium has exhibits that feature different marine animals.

1. \( \frac{5}{8} \) of the staff are male. \( \frac{5}{12} \) of the staff works part time at the aquarium. What fraction of the staff is female?

2. The sharks are fed three times a day. During the morning feeding, \( \frac{2}{15} \) of a ton of fish is fed. During the afternoon feeding, the weight of fish fed will be \( \frac{1}{15} \) of a ton more than the fish fed during the morning. If the total weight of fish fed in a day is \( \frac{1}{2} \) of a ton, how much is fed during the feeding at night?

3. A baby otter was born \( \frac{3}{4} \) of a month early. At birth, its weight was \( \frac{7}{8} \) kilograms, which is \( \frac{9}{10} \) kilogram less than the average weight of newborn otter in the aquarium. What is the average weight of newborn otter?
4. The penguin nursery is open two times a day: \( \frac{2}{3} \) hour at noon and \( \frac{5}{12} \) hour in the afternoon. How much time is the penguin nursery open every day?

5. Two kinds of fish can be found in a small tank that is 5 \( \frac{1}{7} \) feet long. The blue fish is \( \frac{2}{15} \) feet long and the orange fish is \( \frac{7}{10} \) feet long. How much longer is the orange fish?

6. An octopus weighed \( \frac{5}{6} \) kilograms. After two weeks, its weight was increased by \( \frac{3}{10} \) kilograms. But afterwards, it lost \( \frac{1}{5} \) kilograms in weight as it was sick. What is its current weight?
Answers

1. \[1 - \frac{5}{8} = \frac{3}{8}\]
   \[\frac{3}{8}\] of the staff are female.

2. \[\frac{1}{2} - \left(\frac{2}{15} + \frac{2}{15} + \frac{1}{15}\right) = \frac{1}{2} - \frac{5}{15} = \frac{15}{30} - \frac{10}{30} = \frac{5}{30} = \frac{1}{6}\]
   \[\frac{1}{6}\] ton of fish is fed during the feeding at night.

3. \[\frac{7}{8} + \frac{9}{10} = 1 \frac{31}{40}\]
   The average weight of newborn otter is \(1 \frac{31}{40}\) kilograms.

4. \[\frac{2}{3} + \frac{5}{12} = 1 \frac{1}{12}\]
   The penguin nursery opens \(1 \frac{1}{12}\) hours.

5. \[\frac{7}{10} - \frac{2}{15} = \frac{17}{30}\]
   The orange fish is \(\frac{17}{30}\) feet longer than the blue fish.

6. \[\frac{5}{6} + \frac{3}{10} - \frac{1}{5} = \frac{14}{15}\]
   The current weight of the octopus is \(\frac{14}{15}\) kilograms.