Fraction word problems

Grade 5 Word Problems Worksheet

1. The water jug for a basketball team was \( \frac{7}{8} \) full of water. After the game, the 8 players poured out \( \frac{3}{5} \) of the water in the jug. What fraction of the water was left in the water jug after the game?

2. In the school stadium, \( \frac{1}{5} \) of the students were basketball players, \( \frac{2}{15} \) the students were soccer players, and the rest of the students watched the games. How many students watched the games?

3. In the basketball club, \( \frac{1}{10} \) of the students were the elected officials and the rest were the club members. After some members transferred out to another soccer club, \( \frac{5}{6} \) of the students were left in the club. What fraction of the students in the club transferred out?
4. Daniel wants to buy new equipment to practice playing basketball. He went to the mall for 2 hours and spent \(\frac{1}{6}\) of his savings for jersey shorts and another \(\frac{1}{3}\) of it for a ball. He used another \(\frac{5}{12}\) of his savings to buy badminton rackets for his 2 siblings. What part of his savings did he spend on sports equipment in all?

5. On the basketball court, David spent \(\frac{2}{3}\) of an hour practicing basketball. After 3 hours, his friend George came and practiced on the other court for \(\frac{3}{2}\) hours. Who practiced longer? How many hours longer?

6. A player on the red basketball team was MVP (player scoring the most points) in the last game. Hudson got \(\frac{2}{5}\) of the red team’s total score. Fred got \(\frac{1}{8}\) of the total score for the team, and Job got \(\frac{1}{4}\) more of the total points than Fred. What fraction of the total points did Job get? Who would be the MVP among the three?
Answers

1. \[
\frac{7}{8} - \frac{3}{5} = \frac{35-24}{40} = \frac{11}{40}
\]
   There was \(\frac{11}{40}\) of the water left in the water jug.

2. \[
1 - \left(\frac{1}{5} + \frac{2}{15}\right) = 1 - \left(\frac{3}{15} + \frac{2}{15}\right) = \frac{15}{15} (\text{one whole}) - \frac{5}{15} = \frac{10}{15} \text{ or } \frac{2}{3}
\]
   \(\frac{2}{3}\) of the students watched the games.

3. \[
\frac{10}{9} - \frac{5}{6} = \frac{27-25}{30} = \frac{2}{30} \text{ or } \frac{1}{15}
\]
   \(\frac{1}{15}\) of the club members transferred out.

4. \[
\frac{1}{6} + \frac{1}{3} + \frac{5}{12} = \frac{2}{12} + \frac{4}{12} + \frac{5}{12} = \frac{11}{12}
\]
   He spent \(\frac{11}{12}\) of his savings on the sports equipment.

5. \[
\frac{3}{2} > \frac{2}{3}
\]
   \(\frac{3}{2} - \frac{2}{3} = \frac{9}{6} - \frac{4}{6} = \frac{5}{6}\)
   George practiced basketball \(\frac{5}{6}\) hours or 50 minutes longer than David.

6. \[
\frac{1}{8} + \frac{1}{4} = \frac{3}{8}
\]
   Job got \(\frac{3}{8}\) of the total points for the red basketball team.

\(\frac{2}{5} > \frac{3}{8} > \frac{1}{16}, \frac{15}{40}, \frac{5}{40}\)
Hudson is the MVP of the basketball red team.