Adding and subtracting fractions

Grade 4 Word Problems Worksheet

Mr. Morris is working at a construction site.

1. Mr. Morris started with $5\frac{1}{7}$ boxes of nails and $2\frac{4}{7}$ boxes of screws in his toolbox. He used $2\frac{5}{7}$ boxes of nails at the site. How many boxes of nails were left in his box?

2. It takes $2\frac{1}{4}$ pails of blue paint and $3\frac{1}{4}$ pails of yellow paint to make green paint. How many pails of green paint will there be?

3. Mr. Morris checked 3 pipes at the construction sites. The black pipe is $2\frac{1}{5}$ meters long. The blue pipe is $10\frac{1}{5}$ meters long and the orange pipe is $3\frac{2}{5}$ longer than the blue pipe. He used $5\frac{4}{5}$ meters of orange pipe as a water pipe. How much orange pipe is left?

4. There are 3 pockets in his tool bag. The hammer in the left pocket weighs $8\frac{1}{7}$ ounces. The wrench in the middle pocket weighs $7\frac{2}{7}$ ounces, and there are also $6\frac{1}{7}$ ounces of nails in the middle pocket. The right pocket has $2\frac{5}{7}$ ounces of screws and pliers that weigh$14\frac{1}{7}$ ounces. What is the total weight of the bag's contents?

5. There are $2\frac{1}{8}$ sacks of cement and $3\frac{5}{7}$ sacks of sand left at the construction site. If they had already used $9\frac{5}{8}$ sacks of cement, how many sacks of cement were there at the beginning?

6. A house window needs a piece of glass $22\frac{5}{9}$ inches wide. If there is a $28\frac{1}{9}$ -inch piece of window glass available, how much needs to be cut off to leave a piece that will fit in the house window?

Answers

1. $5\frac{1}{7} - 2\frac{5}{7} = 2\frac{3}{7}$
   There were $2\frac{3}{7}$ boxes of nails left in his toolbox.

2. $2\frac{1}{4} + 3\frac{1}{4} = 5\frac{2}{4}\ \left(or\ 5\frac{1}{2}\right)$
   There are $5\frac{1}{2}$ pails of green paint.

3. $10\frac{1}{5} + 3\frac{2}{5} = 13\frac{3}{5}$
   $13\frac{3}{5} - 5\frac{4}{5} = 7\frac{4}{5}$
   There are $7\frac{4}{5}$ meters of orange pipe left.

4. $7\frac{2}{7} + 6\frac{1}{7} = 13\frac{3}{7}$
   $2\frac{5}{7} + 14\frac{1}{7} = 16\frac{6}{7}$
   $8\frac{1}{7} + 13\frac{3}{7} + 16\frac{6}{7} = 37\frac{10}{7} = 38\frac{3}{7}$
   The tool bag weighs $38\frac{3}{7}$ ounces.

5. $2\frac{1}{8} + 9\frac{5}{8} = 11\frac{6}{8}\ \left(or\ 11\frac{3}{4}\right)$
   There were $11\frac{3}{4}$ sacks of cement at the beginning.

6. $28\frac{1}{9} - 22\frac{5}{9} = 5\frac{5}{9}$
   They must cut off $5\frac{5}{9}$ inches of glass to get the correct size piece.