Adding and subtracting fractions

Mrs. Cooper is a tailor. She is checking her materials in stock at her shop.

1. There are $1\frac{1}{3}$ sets of light-colored threads and $2\frac{2}{3}$ boxes of needles in the tailoring shop. She received a delivery of another $4\frac{2}{3}$ sets of dark-colored threads from the supplier. How many sets of thread are there in all?

2. She found $8\frac{2}{5}$ feet of garter elastic and $6\frac{1}{5}$ feet of yarn in a cabinet. She used $5\frac{4}{5}$ feet of elastic for a dress ordered by her customer. How much garter elastic did Mrs. Cooper have left?

3. In her cabinet, she has $8\frac{7}{8}$ boxes of buttons. Her 2 assistants checked and found there were $3\frac{1}{8}$ boxes of round buttons, $2\frac{3}{8}$ boxes of flower buttons, and the rest were square buttons. How many boxes of square buttons were there?

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4. From the boxes of square buttons in the cabinet, there were $2\frac{1}{8}$ boxes of buttons with 4 holes, and the rest had 2 holes. How many boxes of square buttons had 2 holes?

5. Mrs. Cooper needs to use $6\frac{2}{5}$ bolts of cotton fabric to make a bulk order of 220 branded t-shirts. There were $3\frac{4}{5}$ bolts of cotton fabric left in the tailoring shop. How many more bolts of cotton fabric does she need to complete the bulk order?

6. Mrs. Cooper's assistants are Junie and April. Junie can sew 3 identical dresses in $4\frac{5}{6}$ hours. April can do the same work in $5\frac{1}{6}$ hours. How much faster is Junie than April in sewing the 3 dresses?

Answers

1. $1\frac{1}{3} + 4\frac{2}{3} = 6$

    There are 6 sets of thread in all.

2. $8\frac{2}{5} - 5\frac{4}{5} = 2\frac{3}{5}$

    Mrs. Cooper has $2\frac{3}{5}$ feet of garter elastic left.

3. $8\frac{7}{8} - 3\frac{1}{8} - 2\frac{3}{8} = 3\frac{3}{8}$

    There were $3\frac{3}{8}$ boxes of square buttons.

4. $3\frac{3}{8} - 2\frac{1}{8} = 1\frac{2}{8} \left(or\ 1\frac{1}{4} \right)$

    There were $1\frac{1}{4}$ boxes of square buttons with 2 holes.

5. $6\frac{2}{5} - 3\frac{4}{5} = 2\frac{3}{5}$

    Mrs. Cooper needs $2\frac{3}{5}$ more bolts of cotton fabric.

6. $5\frac{1}{6} - 4\frac{5}{6} = \frac{2}{6} \left(or\ \frac{1}{3} \right)$

    Junie is $\frac{1}{3}$ hours faster than April.