

Name: Key

Block: \_\_\_\_\_

Date: \_\_\_\_\_

**Word Problems - Adding and Subtracting Fractions**

1. Find the perimeter of a rectangle with a length of  $4\frac{1}{3}$  metres and a width of  $2\frac{2}{3}$  metres.

$$\begin{aligned} \text{Perimeter} &= 4\frac{1}{3} + 2\frac{2}{3} + 4\frac{1}{3} + 2\frac{2}{3} \\ &= \frac{13}{3} + \frac{8}{3} + \frac{13}{3} + \frac{8}{3} = \frac{42}{3} = \boxed{14\text{m}} \end{aligned}$$

2. John pours  $6\frac{2}{5}$  litres of water from a bucket containing  $10\frac{1}{4}$  litres. How much water is left in the bucket?

$$10\frac{1}{4} - 6\frac{2}{5} = \frac{41}{4} - \frac{32}{5} = \frac{205}{20} - \frac{128}{20} = \frac{77}{20} = \boxed{3\frac{17}{20}\text{ L}}$$

3. Sarah has two pictures that she wants to put beside each other on a piece of paper. One is  $3\frac{1}{2}$  inches wide and the other is  $5\frac{1}{8}$  inches wide. Will the two photos fit side by side on an  $8\frac{1}{2}$  inch wide piece of paper? Explain your reasoning.

$$3\frac{1}{2} + 5\frac{1}{8} = \frac{7}{2} + \frac{41}{8}$$

$$= \frac{28}{8} + \frac{41}{8} = \frac{69}{8} = 8\frac{5}{8}\text{ in}$$

No, it will not fit, it's too wide for  $8\frac{1}{2}$  in paper

4. Terry's right foot measures  $9\frac{2}{5}$  inches, while Bill's right foot measures  $8\frac{4}{5}$  inches. How much longer is Terry's foot than Bill's?

$$\begin{aligned} 9\frac{2}{5} - 8\frac{4}{5} &= \frac{47}{5} - \frac{44}{5} \\ &= \frac{3}{5}\text{ in.} \end{aligned}$$

Terry's foot is  $\frac{3}{5}$  inches longer than Bill's

5. Find the perimeter of a triangle with sides  $1\frac{1}{3}$  inches,  $2\frac{1}{6}$  inches, and  $1\frac{2}{3}$  inches.

$$1\frac{1}{3} + 2\frac{1}{6} + 1\frac{2}{3} = \frac{4}{3} + \frac{13}{6} + \frac{5}{3}$$

$$= \frac{8}{6} + \frac{13}{6} + \frac{10}{6} = \frac{31}{6} = \boxed{5\frac{1}{6}\text{ inches}}$$

6. Two pumpkins are weighed. The first pumpkin weighs  $4\frac{5}{6}$  kilograms and the second weighs  $5\frac{1}{2}$  kilograms. How much more does the second pumpkin weigh than the first?

$$5\frac{1}{2} - 4\frac{5}{6} = \frac{11}{2} - \frac{29}{6}$$

$$= \frac{33}{6} - \frac{29}{6} = \frac{4}{6} = \boxed{\frac{2}{3}\text{ kg more}}$$