1.

Place $\frac{1}{4}, \frac{1}{2}, \frac{1}{8}, \frac{5}{8}, \frac{7}{8}$ and $\frac{3}{16}$ on the number line.

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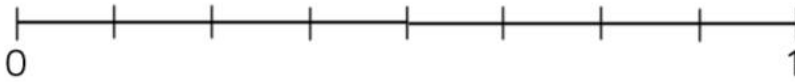
Which fractions were the easiest to place?
Which fractions were the hardest to place?
Which fraction is the largest? Which fraction is the smallest?
What is the difference between the largest and smallest fraction?

2.

Rosie is counting backwards in fifths.
She starts at $3\frac{2}{5}$ and counts back nine
fifths.
What number does Rosie end on?
Show this on a number line.

3.

Dora is comparing $\frac{5}{6}$ and $\frac{3}{4}$ by finding the lowest common multiple of the denominators.

Multiples of 6: 6, **12**, 18, 24
Multiples of 4: 4, 8, **12**, 16,
12 is the LCM of 4 and 6

$\frac{5}{6} = \frac{10}{12}$ $\frac{3}{4} = \frac{9}{12}$

$\frac{10}{12} > \frac{9}{12}$

Use Dora's method to compare the fractions.

$\frac{4}{5} \bigcirc \frac{3}{4}$ $\frac{3}{5} \bigcirc \frac{4}{7}$ $\frac{3}{4} \bigcirc \frac{7}{10}$ $2\frac{2}{5} \bigcirc 2\frac{3}{8}$

4.

Teddy is comparing $\frac{3}{8}$ and $\frac{5}{12}$

To find the lowest common multiple, I will multiply 8 and 12 together.
$8 \times 12 = 96$
I will use a common denominator of 96

Is Teddy correct?
Explain why.

5.

Two different pieces of wood have had a fraction chopped off.

Here are the pieces now, with the fraction that is left.

$\frac{5}{6}$

$\frac{3}{4}$

Which piece of wood was the longest to begin with?

Explain your answer.

Can you explain your method?

6.

Whitney is calculating $\frac{5}{8} + \frac{3}{16}$

She finds the lowest common multiple of 8 and 16 to find a common denominator.

LCM of 8 and 16 is 16 $\frac{5}{8} = \frac{10}{16}$ $\frac{10}{16} + \frac{3}{16} = \frac{13}{16}$

Use this method to calculate:

$\frac{1}{3} + \frac{2}{9} =$ $\frac{3}{7} + \frac{7}{21} =$ $\frac{8}{15} + \frac{1}{5} =$ $\frac{3}{16} + \frac{3}{8} + \frac{1}{4} =$

7.

Eva has a full tin of paint. She uses $\frac{1}{3}$ of the tin on Friday, $\frac{1}{21}$ on Saturday and $\frac{2}{7}$ on Sunday. How much paint does she have left?

8.

Alex is adding fractions.

$$\frac{3}{5} + \frac{1}{15} = \frac{4}{20} = \frac{1}{5}$$

Do you agree with her?
Explain your answer.

9.

Eva has a bag of carrots weighing $\frac{3}{4}$ kg and a bag of potatoes weighing $\frac{2}{5}$ kg. She is calculating how much they weigh altogether.

The LCM of 4 and 5 is 20. I will convert the fractions to twentieths.

$$\frac{3}{4} + \frac{2}{5} = \frac{15}{20} + \frac{8}{20} = \frac{23}{20} = 1\frac{3}{20} \text{ kg}$$

Use this method to calculate:

$$\frac{1}{4} + \frac{2}{5} = \qquad \frac{7}{8} + \frac{1}{3} = \qquad \frac{5}{6} + \frac{5}{7} = \qquad \frac{13}{20} + \frac{2}{3} =$$

10.

On Friday, Ron walks $\frac{5}{6}$ km to school, $\frac{3}{4}$ km to the shops and $\frac{4}{5}$ km home. How far does he walk altogether?

11.

A car is travelling from Halifax to Brighton.
In the morning, it completes $\frac{2}{3}$ of the journey.
In the afternoon, it completes $\frac{1}{5}$ of the journey.
What fraction of the journey has been travelled altogether?
What fraction of the journey is left to travel?

If the journey is 270 miles, how far did the car travel in the morning?
How far did the car travel in the afternoon?
How far does the car have left to travel?

12.

Add these fractions.

$$4\frac{7}{9} + 2\frac{1}{3} \qquad\qquad \frac{17}{6} + 1\frac{1}{3} \qquad\qquad \frac{15}{8} + 2\frac{1}{4}$$

13.

Dora is baking muffins.

She uses $2\frac{1}{2}$ kg of flour, $1\frac{3}{5}$ kg of sugar
and $1\frac{1}{4}$ kg of butter.

How much flour, sugar and butter does
she use altogether?

How much more flour does she use than
butter?

How much less butter does she use than
sugar?

14.

Amir is calculating $3\frac{2}{5} - 1\frac{7}{10}$

He converts the mixed numbers to improper fractions to subtract
them.

$$3\frac{2}{5} - 1\frac{7}{10} = \frac{17}{5} - \frac{17}{10} = \frac{34}{10} - \frac{17}{10} = \frac{17}{10} = 1\frac{7}{10}$$

Convert the mixed numbers to improper fractions to calculate:

$4\frac{4}{5} - 1\frac{9}{10} = \qquad 2\frac{1}{7} - 1\frac{1}{3} = \qquad 3\frac{5}{12} - 1\frac{7}{9} = \qquad 3\frac{5}{11} - 1\frac{4}{5} =$

15.

Alex has 5 bags of sweets.

On Monday she eats $\frac{2}{3}$ of a bag and gives $\frac{4}{5}$ of a bag to her friend.

On Tuesday she eats $1\frac{1}{3}$ bags and gives $\frac{2}{5}$ of a bag to her friend.

What fraction of her sweets does Alex have left?

Give your answer in its simplest form.