The Primary Stage of Grades (4-5)

Second Semester 2022 - 2023

Name: _____   **Subject:** Mathematics

Date: / /   **Worksheet(4)**   **Class:** <u>Grade 5 (C,D,E ,F&G)</u>

Objectives:

Add and subtract fractions with like and unlike denominators .

Adding and subtracting simple fractions

When fractions have the same denominator it is quite easy to add them together and to subtract them.

For example,

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

We can show this calculation in a diagram:

1) Find the answer for each number sentence below in the simplest form:

a) $\frac{3}{8} + \frac{1}{8} =$ ⬚   b) $\frac{7}{10} + \frac{2}{10} =$ ⬚
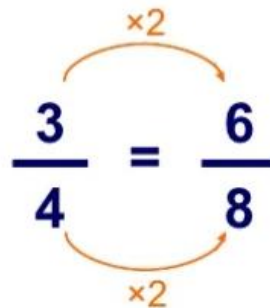
c) $\frac{8}{9} - \frac{5}{9} =$ ⬚   d) $\frac{10}{13} - \frac{7}{13} =$ ⬚

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1

We can use **equivalent** fractions to add fractions that do not have the same **denominator**.

For example:

$$\frac{3}{4} + \frac{1}{8}$$

We need to change $\frac{3}{4}$ into an equivalent fraction with a denominator of 8.

$$\frac{3}{4} \xlongequal{\times 2} \frac{6}{8}$$

Now we have:

$$\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$$

e) $\dfrac{3}{10} + \dfrac{2}{5} =$

f) $\dfrac{1}{3} + \dfrac{7}{12} =$

g) $\dfrac{9}{16} - \dfrac{1}{8} =$

h) $\dfrac{5}{9} - \dfrac{7}{18} =$

i) $\dfrac{9}{4} + \dfrac{1}{2} =$

j) $\dfrac{9}{4} + 2\dfrac{1}{8} =$

k) $3\dfrac{7}{16} - 1\dfrac{1}{4} =$

l) $\dfrac{10}{3} - \dfrac{15}{12} =$

$$\frac{1}{3} + \frac{1}{4}$$

**To add or subtract fractions with different denominators
we have to convert them so they have
the same or common denominator,
a number that they will both
divide into evenly.**

Step 1 Work out the **multiples** for each denominator.

$\frac{1}{③}$ → 3, 6, 9, ⑫, 15 $\frac{1}{④}$ → 4, 8, ⑫, 16, 20

Step 2 Then it's easy to see the least or **lowest common denominator (multiple).** ⑫

Step 3 Convert your fraction to its equivalent using the ⑫ **lowest common denominator (multiple).**

$\frac{1 \,x4}{3 \,x4}$ → $\frac{4}{12}$ $\frac{1 \,x3}{4 \,x3}$ → $\frac{3}{12}$ *Don't forget to multiply the top AND the bottom*

Step 4 Add your equivalent fractions.
You now have the answer.

$\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$ *or* $\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$

m) $\frac{3}{5} + \frac{4}{7} =$

n) $\frac{7}{8} - \frac{5}{6} =$
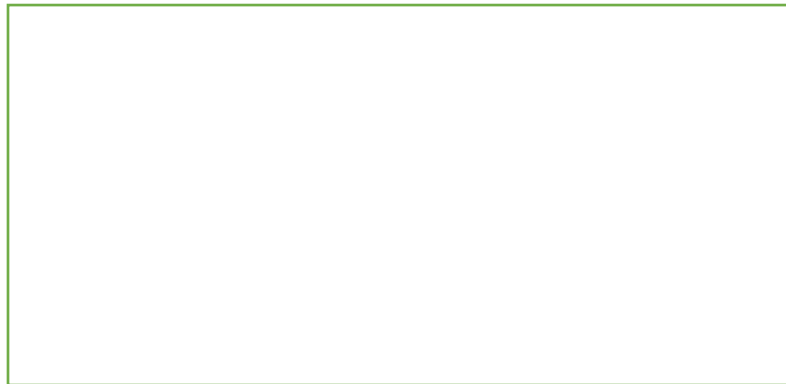
o) $4\frac{3}{5} + 5\frac{1}{2} =$

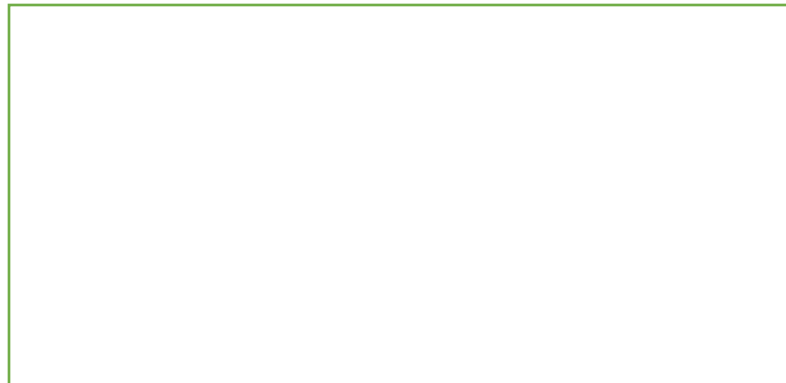p) $6\frac{4}{7} - 3\frac{1}{3} =$

3

* Extra :

a) $8\frac{1}{5} - 5\frac{3}{4} =$

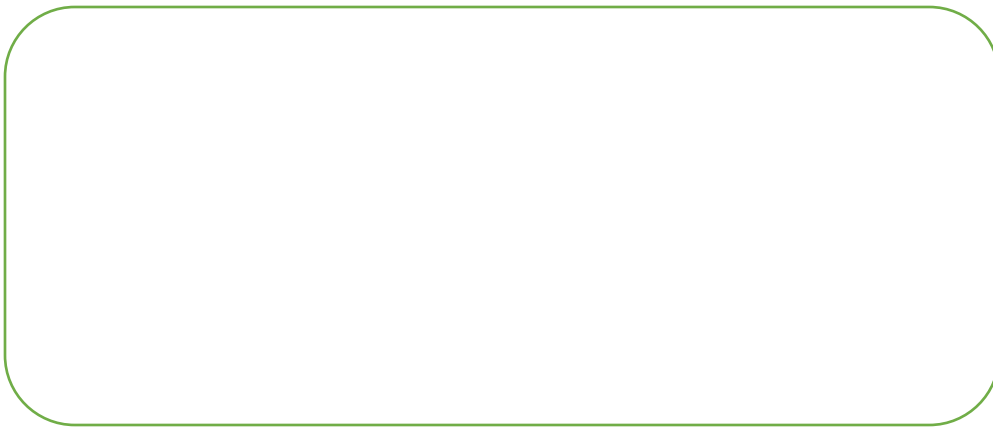b) $2\frac{1}{8} - \frac{1}{4} =$

c) $7 - 5\frac{13}{24} =$

2) Ms. Bloom is one of the Grade 5 teachers in the school.

a) On Friday, many of the students were missing in her class.

$\frac{1}{8}$ of the class went to a basketball tournament and $\frac{1}{8}$ of the

class called in sick.
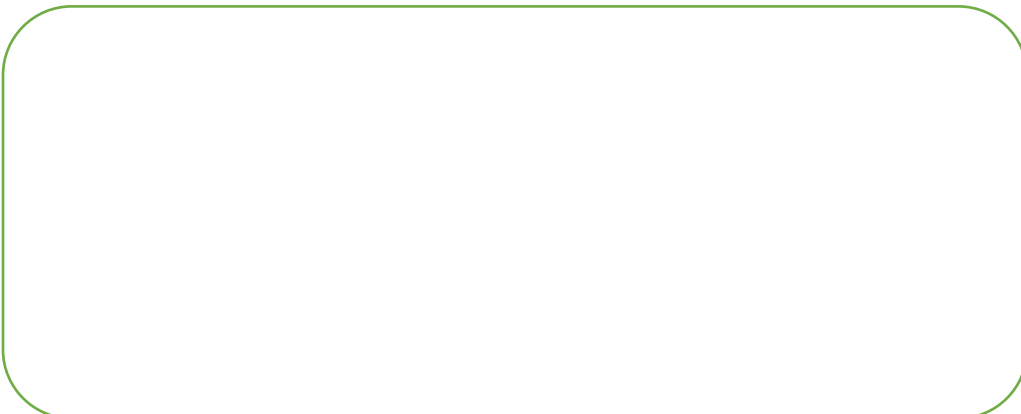
What fraction of the class was at the school?

b) Ms. Bloom has $\frac{15}{16}$ of a pack of construction papers for the art project

at her desk.

Ms. Bloom takes another 2 new packs of construction papers

to the class.

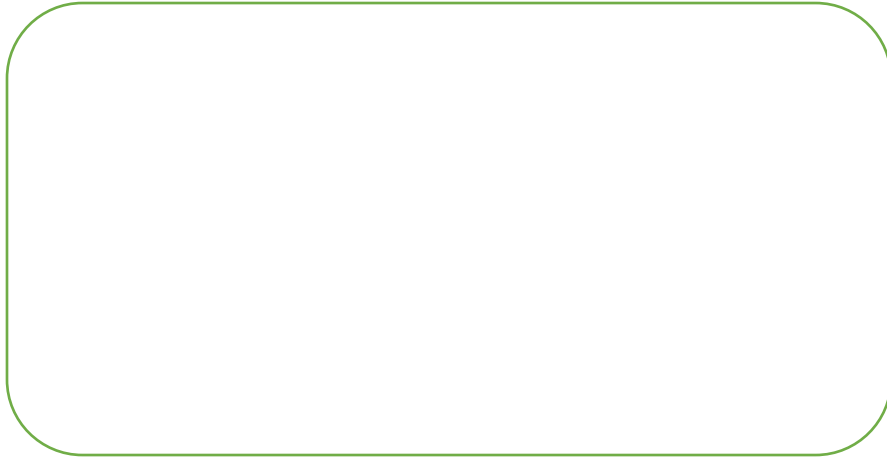The students use $1\frac{1}{4}$ packs for the art project.

How many packs of construction papers are left?

c) Ms. Bloom had $4\frac{7}{12}$ boxes of pencils but $2\frac{1}{3}$ boxes of the

pencils were broken.

After she threw out the broken pencils.

How many boxes of pencils were left?

d) Ms. Bloom brought 4 packs of treats for Halloween.

She gave away $2\frac{1}{9}$ packs of treats to her class and gave away

$\frac{2}{3}$ pack of the treats to the other 2 classes that came to her class

for trick-or-treating.

How many packs of treats did she have left?