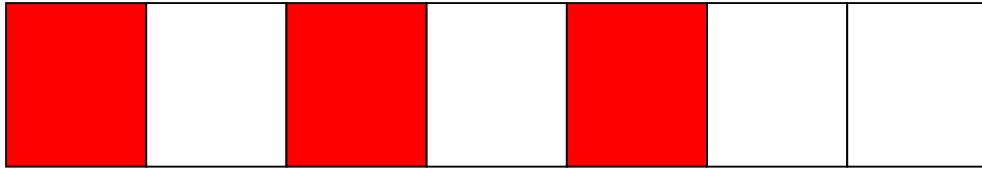


Look at the diagrams and discuss with your friends and teacher.

a)



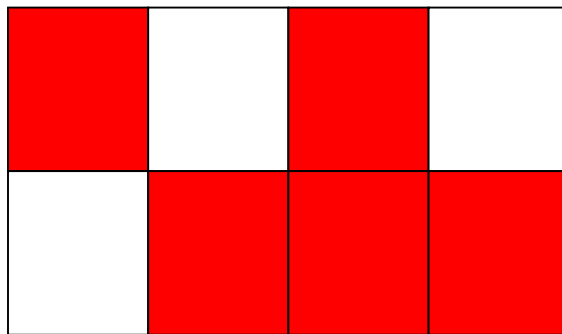
(Diagram A)

b)



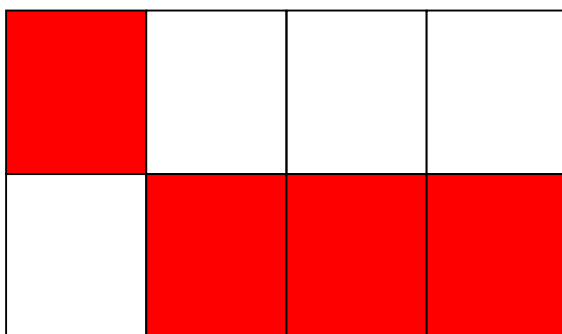
(Diagram B)

c)



(Diagram C)

d)



(Diagram D)

- i. Learning Area : Addition of fraction
- ii. Learning Objective : Add mixed numbers with denominators of up to 10
- iii. Learning Outcomes: Add mixed numbers with different denominators of up to 10

Teaching Aids

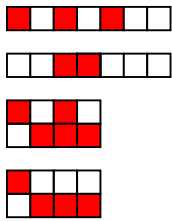
Duration: 1 hour

Diagrams manipulative materials worksheets.

Set Induction

1. Teacher shows diagrams, from a stimulus page. The diagrams consist of several shaded parts

Step 1: Pupils discuss in group the fraction of the shaded part from each diagram.

<p>Pupils' Activity.</p> <p>Discuss about the diagrams.</p> <p>Take turn to talk from their experiences</p> 	<p><u>Notes To Teachers:</u></p> <p><i>Try to follow the phases of discussion:</i></p> <ul style="list-style-type: none"> o Modeling / stripe paper o Sharing / cake o creating. <p><i>Guide pupils to discuss about the fraction..</i></p> <p><i>Pupils compare the sizes and use words such as bigger and smaller.,</i></p> <p><i>Teacher guides pupils to say the fraction in correct terms.</i></p>
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<p><u>Teacher's Instruction:</u></p> <ol style="list-style-type: none"> 1. What is the fraction of the shaded part (a, b , c and d) 2. Based on the diagrams given, add a and b . 3. Based on the diagrams given, add c and d . 4. What is the simplest fraction of c ? 5. Simplify fraction d . 	<p><u>Expected answers from pupils:</u></p> <ol style="list-style-type: none"> 1. a) $\frac{3}{4}$ b) $\frac{4}{4} = 1$ (one whole) c) $\frac{2}{6} = \frac{1}{3}$ d) $\frac{5}{4} = 1\frac{1}{4}$ 2. $\frac{5}{8}$ 3. $\frac{9}{8}$ or $1\frac{1}{8}$ 4. $1\frac{1}{8}$
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CASE:

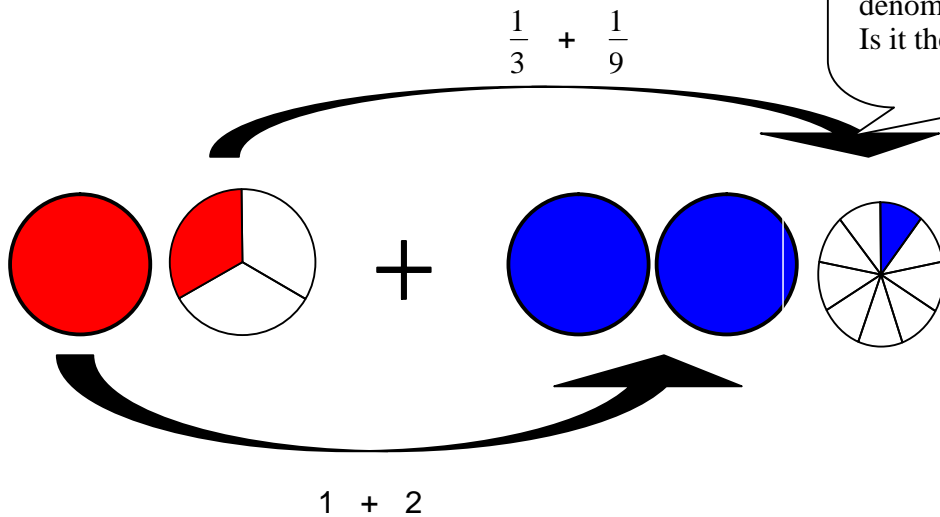
1a. Pupils find difficulty in finding the same denominator before adding.

SOLUTION: 1

1. Use diagrams to show the process of addition in fraction.

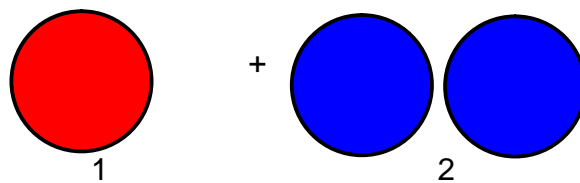
Example : $1\frac{1}{3} + 2\frac{1}{9}$

Step 1:

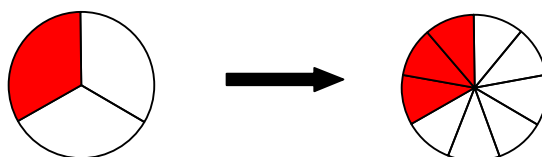


Teacher's Instruction:
 *How do you get the answer?
 * First look at the denominator
 Is it the same?

Step 2 : Add the whole number



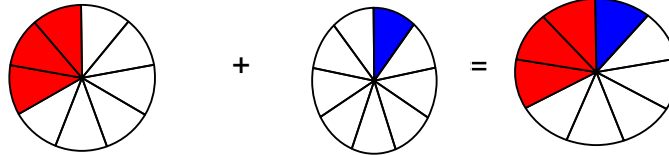
Step 3: Emphasize that 1 of 3 portions is equivalent to 3 of 9 portions.



Find the same denominator

$$\frac{1}{3} = \frac{3}{9}$$

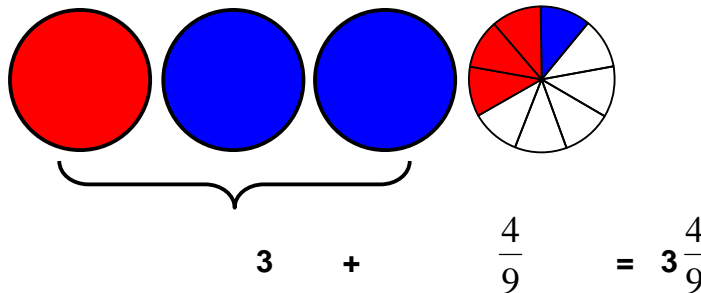
Step 4: Add the fractions



Add the fractions with the same denominator

$$\frac{3}{9} + \frac{1}{9} = \frac{4}{9}$$

Step 5: Combine the whole number and fraction.



What is your answer ?

SOLUTION: 2

Example : $1\frac{1}{3} + 2\frac{1}{9}$

Step : 1 Change $1\frac{1}{3}$ to the equivalent fraction with the same denominator by using table of common lowest factor.

X 3	X 9
3	9
6	18
9	27

$$1\frac{1 \times 3}{3 \times 3} = 1\frac{3}{9}$$

Step : 2 Add $1\frac{3}{9}$ to $2\frac{1}{9}$

$$1\frac{3}{9} + 2\frac{1}{9}$$

1. Add the whole number first \longrightarrow $1 + 2$

2. Add the fractions \longrightarrow $\frac{3}{9} + \frac{1}{9}$

3. $(1 + 2) (\frac{3}{9} + \frac{1}{9})$

$$= 3\frac{4}{9}$$

Worksheet*Adding fractions.*

$$\frac{1}{2} + \frac{1}{4} =$$

Multiply the
denominators

$$\frac{1}{2 \times 4} + \frac{1}{4 \times 2} =$$

Multiply the
numerators

$$\frac{1 \times 4}{2 \times 4} + \frac{1 \times 2}{4 \times 2} =$$

Add the
numerators

$$\frac{4}{8} + \frac{2}{8} =$$

Simplify

$$\frac{6}{8}$$

$$\frac{3}{4}$$

Adding fractions.

Exercises

1	$\frac{1}{3} + \frac{1}{6} =$	6	$\frac{1}{6} + \frac{3}{5} =$
2	$\frac{1}{2} + \frac{2}{5} =$	7	$\frac{3}{5} + \frac{1}{3} =$
3	$\frac{1}{7} + \frac{3}{4} =$	8	$\frac{1}{4} + \frac{5}{9} =$
4	$\frac{2}{9} + \frac{1}{2} =$	9	$\frac{4}{7} + \frac{1}{3} =$
5	$\frac{3}{8} + \frac{1}{3} =$	10	$\frac{2}{9} + \frac{2}{5} =$

11	$\frac{3}{8} + \frac{1}{2} =$	16	$\frac{1}{4} + \frac{1}{6} =$
12	$\frac{5}{9} + \frac{1}{3} =$	17	$\frac{1}{6} + \frac{3}{8} =$
13	$\frac{2}{5} + \frac{3}{10} =$	18	$\frac{1}{10} + \frac{5}{6} =$
14	$\frac{1}{4} + \frac{3}{8} =$	19	$\frac{5}{6} + \frac{1}{9} =$
15	$\frac{1}{6} + \frac{1}{2} =$	20	$\frac{3}{4} + \frac{1}{10} =$

21	$2\frac{1}{3} + 1\frac{1}{6} =$	26	$4\frac{1}{6} + 5\frac{2}{3} =$
22	$2\frac{1}{4} + 1\frac{1}{8} =$	27	$4\frac{2}{3} + 1\frac{1}{6} =$
23	$4\frac{2}{5} + 1\frac{3}{10} =$	28	$7\frac{1}{8} + 2\frac{3}{4} =$
24	$2\frac{1}{4} + 5\frac{1}{2} =$	29	$2\frac{1}{10} + 5\frac{3}{5} =$
25	$2\frac{3}{8} + 1\frac{1}{4} =$	30	$4\frac{3}{8} + 1\frac{1}{4} =$