

# Varied Fluency

## Step 2: Improper Fractions to Mixed Numbers

### National Curriculum Objectives:

Mathematics Year 5: (5F2a) [Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements  \$> 1\$  as a mixed number \[for example,  \$2/5 + 4/5 = 6/5 = 1 \frac{1}{5}\$ \]](#)

### Differentiation:

**Developing** Questions to support converting improper fractions to mixed numbers. Includes halves, thirds, quarters, fifths and tenths.

**Expected** Questions to support converting improper fractions to mixed numbers. Includes fractions up to twelfths where some fractions can be simplified.

**Greater Depth** Questions to support converting improper fractions to mixed numbers. Includes fractions up to twelfths and answers must be simplified using knowledge of equivalent fractions.

More [Year 5 Fractions](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

## Improper Fractions to Mixed Numbers

1a. Show these improper fractions as a diagram and a mixed number.

a.  $\frac{9}{2}$   

b.  $\frac{14}{10}$   

c.  $\frac{8}{5}$   



VF

## Improper Fractions to Mixed Numbers

1b. Show these improper fractions as a diagram and a mixed number.

a.  $\frac{8}{3}$   

b.  $\frac{7}{2}$   

c.  $\frac{13}{5}$   



VF

2a. Convert these improper fractions into mixed numbers.

a.  $\frac{14}{5}$     b.  $\frac{13}{4}$     c.  $\frac{11}{3}$     d.  $\frac{23}{10}$



VF

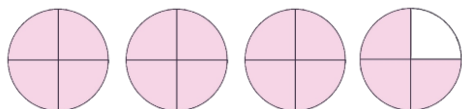
2b. Convert these improper fractions into mixed numbers.

a.  $\frac{15}{4}$     b.  $\frac{19}{10}$     c.  $\frac{18}{5}$     d.  $\frac{13}{3}$



VF

3a. Which answer matches the diagram?



a.  $\frac{12}{4}$     b.  $\frac{13}{4}$     c.  $\frac{14}{4}$     d.  $\frac{15}{4}$



VF

3b. Which answer matches the diagram?



a.  $\frac{8}{5}$     b.  $\frac{10}{5}$     c.  $\frac{14}{5}$     d.  $\frac{15}{5}$



VF

4a. Amy is sharing out 5 pizzas with her friends.

Each pizza is cut into 5 equal pieces.  
They eat 19 slices of pizza.

How much pizza have they eaten?

Give your answer as a mixed number.



VF

4b. David has baked three cakes for his friends to share.

Each cake is divided into 5 equal pieces.  
They eat 13 pieces.

How much cake have they eaten?

Give your answer as mixed number.





VF

## Improper Fractions to Mixed Numbers

## Improper Fractions to Mixed Numbers

5a. Show these improper fractions as a diagram and a mixed number.

a.  $\frac{8}{3}$   

b.  $\frac{9}{4}$   

c.  $\frac{6}{5}$   

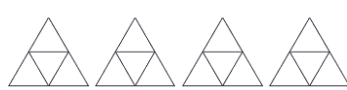



VF

5b. Show these improper fractions as a diagram and a mixed number.

a.  $\frac{10}{6}$   

b.  $\frac{11}{7}$   

c.  $\frac{14}{4}$   



VF

6a. Convert these improper fractions into mixed numbers.

a.  $\frac{14}{6}$     b.  $\frac{19}{8}$     c.  $\frac{17}{3}$     d.  $\frac{23}{5}$



VF

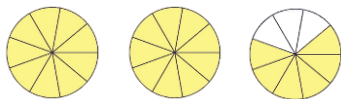
6b. Convert these improper fractions into mixed numbers.

a.  $\frac{15}{6}$     b.  $\frac{19}{12}$     c.  $\frac{18}{7}$     d.  $\frac{22}{9}$



VF

7a. Which answer matches the diagram?

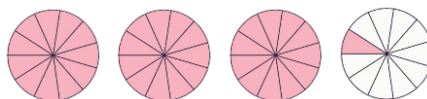


a.  $\frac{18}{9}$     b.  $\frac{24}{9}$     c.  $\frac{23}{9}$     d.  $\frac{20}{9}$



VF

7b. Which answer matches the diagram?



a.  $\frac{3}{11}$     b.  $\frac{34}{11}$     c.  $\frac{33}{11}$     d.  $\frac{30}{11}$



VF

8a. Sally is sharing out 4 pizzas with her friends.

Each pizza is cut into 8 equal pieces.  
They eat 26 slices of pizza.

How much pizza has been eaten?

Give your answer as a mixed number.



VF

8b. Paul has baked 6 rocky road cakes for a party.

Each cake has been cut equally into 12 pieces.  
27 pieces are eaten.

How much rocky road has been eaten?

Give your answer as a mixed number.



VF

## Improper Fractions to Mixed Numbers

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9a. Show these improper fractions as a mixed number. Simplify your answer.

	Mixed Number	Simplified
a. $\frac{18}{4}$	<input type="text"/>	<input type="text"/>
b. $\frac{40}{6}$	<input type="text"/>	<input type="text"/>
c. $\frac{42}{12}$	<input type="text"/>	<input type="text"/>



VF

9b. Show these improper fractions as a mixed number. Simplify your answer.

	Mixed Number	Simplified
a. $\frac{18}{8}$	<input type="text"/>	<input type="text"/>
b. $\frac{39}{12}$	<input type="text"/>	<input type="text"/>
c. $\frac{38}{10}$	<input type="text"/>	<input type="text"/>



VF

10a. Convert these improper fractions into mixed numbers. Simplify your answer where possible.

- a.  $\frac{22}{6}$     b.  $\frac{25}{8}$     c.  $\frac{34}{12}$     d.  $\frac{19}{8}$



VF

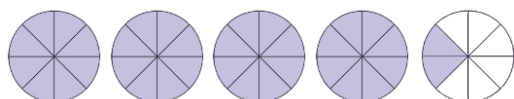
10b. Convert these improper fractions into mixed numbers. Simplify your answer where possible.

- a.  $\frac{32}{12}$     b.  $\frac{17}{9}$     c.  $\frac{46}{8}$     d.  $\frac{33}{7}$



VF

11a. Which answer matches the diagram? Simplify your answer.

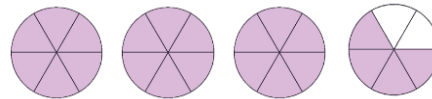


- a.  $\frac{34}{8}$     b.  $\frac{24}{8}$     c.  $\frac{30}{8}$     d.  $\frac{36}{8}$



VF

11b. Which answer matches the diagram? Simplify your answer.



- a.  $\frac{21}{6}$     b.  $\frac{22}{6}$     c.  $\frac{18}{6}$     d.  $\frac{20}{6}$



VF

12a. Kasia is sharing out 5 pizzas with her friends.

Each pizza is cut into 12 equal pieces. They eat 34 slices of pizza.

How much pizza has been eaten?

Give your answer as a mixed number and simplify it.



VF

12b. Korey has baked 6 Lemon Meringue pies.

Each pie has been cut equally into 8 pieces. 28 pieces are eaten.

How much pie has been eaten?

Give your answer as a mixed number and simplify it.



VF

**Developing**

1a.  $a - 9$  parts shaded  $= 4 \frac{1}{2}$

$b - 14$  parts shaded  $= 1 \frac{4}{10}$

$c - 8$  parts shaded  $= 1 \frac{3}{5}$

2a.  $a - 2 \frac{4}{5}$ ;  $b - 3 \frac{1}{4}$ ;  $c - 3 \frac{2}{3}$ ;  $d - 2 \frac{3}{10}$

3a.  $\frac{15}{4}$

4a.  $\frac{19}{5} = 3 \frac{4}{5}$

**Expected**

5a.  $a - 8$  parts shaded  $= 2 \frac{2}{3}$

$b - 9$  parts shaded  $= 2 \frac{1}{4}$

$c - 6$  parts shaded  $= 1 \frac{1}{5}$

6a.  $a - 2 \frac{2}{6} = 2 \frac{1}{3}$ ;  $b - 2 \frac{3}{8}$ ;  $c - 5 \frac{2}{3}$ ;  $d - 4 \frac{3}{5}$

7a.  $\frac{24}{9}$

8a.  $\frac{26}{8} = 3 \frac{2}{8} = 3 \frac{1}{4}$

**Greater Depth**

9a.  $a - 4 \frac{2}{4} = 4 \frac{1}{2}$

$b - 6 \frac{4}{6} = 6 \frac{2}{3}$

$c - 3 \frac{6}{12} = 3 \frac{1}{2}$

10a.  $a - 3 \frac{4}{6} = 3 \frac{2}{3}$ ;  $b - 3 \frac{1}{8}$ ;  $c - 2 \frac{10}{12} = 2 \frac{5}{6}$ ;  
 $d - 2 \frac{3}{8}$

11a.  $\frac{34}{8} = 4 \frac{2}{8} = 4 \frac{1}{4}$

12a.  $\frac{34}{12} = 2 \frac{10}{12} = 2 \frac{5}{6}$

**Developing**

1b.  $a - 8$  parts shaded  $= 2 \frac{2}{3}$

$b - 7$  parts shaded  $= 3 \frac{1}{2}$

$c - 13$  parts shaded  $= 2 \frac{3}{5}$

2b.  $a - 3 \frac{3}{4}$ ;  $b - 1 \frac{9}{10}$ ;  $c - 3 \frac{3}{5}$ ;  $d - 4 \frac{1}{3}$

3b.  $\frac{14}{5}$

4b.  $\frac{13}{5} = 2 \frac{3}{5}$

**Expected**

5b.  $a - 10$  parts shaded  $= 1 \frac{4}{6} = 1 \frac{2}{3}$

$b - 11$  parts shaded  $= 1 \frac{4}{7}$

$c - 14$  parts shaded  $= 3 \frac{2}{4} = 3 \frac{1}{2}$

6b.  $a - 2 \frac{3}{6} = 2 \frac{1}{2}$ ;  $b - 1 \frac{7}{12}$ ;  $c - 2 \frac{4}{7}$ ;  $d - 2 \frac{4}{9}$

7b.  $\frac{34}{11}$

8b.  $\frac{27}{12} = 2 \frac{3}{12} = 2 \frac{1}{4}$

**Greater Depth**

9b.  $a - 2 \frac{2}{8} = 2 \frac{1}{4}$

$b - 3 \frac{3}{12} = 3 \frac{1}{4}$

$c - 3 \frac{8}{10} = 3 \frac{4}{5}$

10b.  $a - 2 \frac{8}{12} = 2 \frac{2}{3}$ ;  $b - 1 \frac{8}{9}$ ;  $c - 5 \frac{6}{8} = 5 \frac{3}{4}$ ;  
 $d - 4 \frac{5}{7}$

11b.  $\frac{22}{6} = 3 \frac{4}{6} = 3 \frac{2}{3}$

12b.  $\frac{28}{8} = 3 \frac{4}{8} = 3 \frac{1}{2}$