

# Maths sheets – Yr5

## (Maths sheet 1) w/c 18 May

① 18/5

### Add and subtract fractions

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1 Complete the calculations. Use the bar models to help you.

a)  $\frac{4}{7} + \frac{2}{7} = \frac{6}{7}$  ✓

b)  $\frac{4}{7} + \frac{3}{7} = \frac{7}{7} = 1$  ✓

c)  $\frac{4}{7} + \frac{4}{7} = \frac{8}{7} = 1\frac{1}{7}$  ✓

d)  $\frac{8}{7} - \frac{3}{7} = \frac{5}{7}$  ✓

e)  $\frac{7}{9} + \frac{8}{9} = \frac{15}{9} = 1\frac{6}{9} = 1\frac{2}{3}$  ✓

f)  $\frac{17}{9} - \frac{8}{9} = \frac{9}{9} = 1$  ✓

g)  $\frac{16}{9} - \frac{8}{9} = \frac{8}{9}$  ✓

h)  $\frac{7}{9} + \frac{2}{9} + \frac{8}{9} = \frac{17}{9} = 1\frac{8}{9}$  ✓

i)  $\frac{7}{15} + \frac{2}{15} + \frac{8}{15} = \frac{17}{15} = 1\frac{2}{15}$  ✓

j)  $\frac{7}{15} - \frac{2}{15} + \frac{8}{15} = \frac{13}{15}$  ✓

3 What could the missing numerators be? Give six different possibilities.

$\frac{5}{8} + \frac{8}{8} = \frac{13}{8}$        $\frac{10}{8} + \frac{3}{8} = \frac{13}{8}$

$\frac{7}{8} + \frac{6}{8} = \frac{13}{8}$        $\frac{2}{8} + \frac{11}{8} = \frac{13}{8}$

$\frac{8}{8} + \frac{5}{8} = \frac{13}{8}$        $\frac{1}{8} + \frac{12}{8} = \frac{13}{8}$  ✓

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Dora has  $2\frac{5}{8}$  litres of juice. She pours out  $\frac{9}{8}$  litres of juice. How many litres of juice does she have left?

Dora has  $1\frac{1}{4}$  litres left.

5 Fill in the missing numerators.

a)  $\frac{3}{8} + \frac{10}{8} = \frac{13}{8}$  ✓

b)  $\frac{13}{8} - \frac{6}{8} = \frac{7}{8}$  ✓

c)  $\frac{13}{8} - \frac{5}{8} = 1$  ✓

d)  $\frac{11}{9} + \frac{11}{9} = \frac{22}{9} = 2\frac{4}{9}$  ✓

e)  $\frac{11}{9} + \frac{9}{9} = \frac{20}{9} = 2\frac{2}{9}$  ✓

f)  $\frac{22}{9} - \frac{2}{9} = \frac{20}{9} = 2\frac{2}{9}$  ✓

g)  $\frac{4}{7} + \frac{6}{7} + \frac{4}{7} = 2$  ✓

h)  $\frac{5}{7} + \frac{4}{7} + \frac{5}{7} = 2$  ✓

i)  $\frac{6}{7} + \frac{2}{7} + \frac{6}{7} = 2$  ✓

j)  $\frac{14}{7} + \frac{3}{7} + \frac{4}{7} = 3$  ✓

k)  $\frac{15}{7} + \frac{1}{7} + \frac{5}{7} = 3$  ✓

l)  $\frac{16}{7} + \frac{6}{7} + \frac{6}{7} = 4$  ✓

6 Here are some fraction cards. Use the cards to write pairs of fractions with a total of 2.

$\frac{9}{8} + \frac{13}{8} = 2$  ✓

$\frac{13}{8} + \frac{3}{8} = 2$  ✓

$\frac{7}{8} + \frac{1}{8} = 1$  ✓

$\frac{3}{8} + \frac{13}{8} = 2$  ✓

$\frac{1}{8} + \frac{15}{8} = 2$  ✓

$\frac{7}{8} + \frac{1}{8} = 1$  ✓

$\frac{9}{8} + \frac{7}{8} = 2$  ✓

7 Annie and Dexter both have a skipping rope. Annie's rope is  $\frac{3}{4}$  m shorter than Dexter's rope. The ropes are  $\frac{13}{4}$  m altogether. How long is each skipping rope?

Annie's rope is  $1\frac{1}{4}$  m long. Dexter's rope is 2 m long.

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# Maths sheets – Yr5

(Maths sheet 2) w/c 18 May

**Add fractions**

1 Complete the calculations.  
Use the bar models to help you.

a)  $\frac{1}{5} + \frac{7}{10} = \frac{2}{10} + \frac{7}{10} = \frac{9}{10}$

b)  $\frac{1}{2} + \frac{3}{10} + \frac{1}{5} = \frac{5}{10} + \frac{3}{10} + \frac{2}{10} = \frac{10}{10} = 1$

c)  $\frac{2}{3} + \frac{5}{6} + \frac{1}{12} = \frac{8}{12} + \frac{10}{12} + \frac{1}{12} = \frac{19}{12} = 1\frac{7}{12}$

2 Complete the additions.

a)  $\frac{4}{5} + \frac{7}{20} = \frac{16}{20} + \frac{7}{20} = \frac{23}{20}$

b)  $\frac{5}{8} + \frac{7}{20} = \frac{25}{40} + \frac{14}{40} = \frac{39}{40}$

c)  $\frac{3}{4} + \frac{5}{12} = \frac{9}{12} + \frac{5}{12} = \frac{14}{12} = 1\frac{1}{6}$

d)  $\frac{4}{3} + \frac{5}{12} = \frac{16}{12} + \frac{5}{12} = \frac{21}{12} = 1\frac{7}{4}$

e)  $\frac{5}{6} + \frac{11}{15} = \frac{25}{30} + \frac{22}{30} = \frac{47}{30}$

f)  $\frac{5}{3} + \frac{11}{15} = \frac{25}{15} + \frac{11}{15} = \frac{36}{15} = 2\frac{2}{5}$

3 Match the additions that have the same answer.

$\frac{3}{5} + \frac{9}{20} = \frac{12}{20} + \frac{9}{20} = \frac{21}{20}$

$\frac{3}{4} + \frac{9}{20} = \frac{15}{20} + \frac{9}{20} = \frac{24}{20} = \frac{6}{5}$

$\frac{4}{5} + \frac{9}{20} = \frac{16}{20} + \frac{9}{20} = \frac{25}{20} = \frac{5}{4}$

$\frac{7}{10} + \frac{9}{20} = \frac{14}{20} + \frac{9}{20} = \frac{23}{20}$

$\frac{16}{20} + \frac{9}{20} = \frac{25}{20} = \frac{5}{4}$

$\frac{12}{20} + \frac{9}{20} = \frac{21}{20}$

$\frac{14}{20} + \frac{9}{20} = \frac{23}{20}$

$\frac{15}{20} + \frac{9}{20} = \frac{24}{20} = \frac{6}{5}$

4 Dexter has some tins of food. There are four types of food: beans, sweetcorn, soup and tomatoes.

- The total weight of all the tins is 2 kg.
- The tins of beans weigh  $\frac{2}{3}$  kg.
- The tins of sweetcorn weigh  $\frac{5}{12}$  kg.
- The tins of soup weigh  $\frac{1}{4}$  kg.

a) Work out the total weight of the tins of beans, sweetcorn and soup.

$\frac{2}{3} + \frac{5}{12} + \frac{1}{4} = \frac{8}{12} + \frac{5}{12} + \frac{3}{12} = \frac{16}{12} = 1\frac{1}{3}$  kg

b) How much do the tins of tomatoes weigh?

$2 - 1\frac{1}{3} = \frac{2}{3}$  kg

5 Complete the addition pyramids.

a)

b)

c)

6 What could the three missing numerators be?

$\frac{\square}{4} + \frac{\square}{12} + \frac{\square}{3} = \frac{13}{12}$

Give three different possibilities.

$\frac{1}{4} + \frac{2}{12} + \frac{1}{3} = \frac{3}{12} + \frac{2}{12} + \frac{4}{12} = \frac{9}{12} = \frac{3}{4}$

$\frac{2}{4} + \frac{2}{12} + \frac{1}{3} = \frac{6}{12} + \frac{2}{12} + \frac{4}{12} = \frac{12}{12} = 1$

$\frac{1}{4} + \frac{2}{12} + \frac{2}{3} = \frac{3}{12} + \frac{2}{12} + \frac{8}{12} = \frac{13}{12}$



# Maths sheets – Yr5

(Maths sheet 3) w/c 18 May

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## Add mixed numbers

1 Teddy and Mo are adding mixed numbers.

Teddy:  $3\frac{1}{4} + 2\frac{5}{8} = 5 + \frac{2}{8} + \frac{10}{8} = 5\frac{12}{8} = 5\frac{3}{2}$

Mo:  $3\frac{1}{4} + 2\frac{5}{8} = \frac{26}{8} + \frac{21}{8} = \frac{47}{8} = 5\frac{7}{8}$

Whose method do you prefer? Teddy

Talk about it with a partner. Because he has made them into mixed numbers which makes the sums easier to add.

2 Complete the calculations.

a)  $1\frac{2}{5} + 2\frac{3}{10} = 3\frac{7}{10}$

b)  $2\frac{2}{5} + 2\frac{3}{10} = 4\frac{7}{10}$

$3 + \frac{4}{10} + \frac{3}{10} = 3\frac{7}{10}$

$4 + \frac{4}{10} + \frac{3}{10} = 4\frac{7}{10}$

3

$2\frac{3}{5} + 1\frac{7}{10} = 3 + \frac{13}{10} = 3\frac{13}{10}$

How can Ron improve his answer?

$3 + 1\frac{3}{10} = 4\frac{3}{10}$

4 Complete the additions.

a)  $2\frac{3}{4} + 3\frac{5}{12} = 6\frac{1}{4}$

b)  $3\frac{2}{3} + 2\frac{7}{12} = 6\frac{1}{4}$

$5 + \frac{9}{12} + \frac{5}{12} = 5\frac{14}{12} = 5\frac{7}{6} = 6\frac{1}{6}$

$5 + \frac{8}{12} + \frac{1}{12} = 5\frac{9}{12} = 5\frac{3}{4} = 5\frac{1}{4}$

$5 + \frac{1}{6} = 5\frac{1}{6}$

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c)  $5\frac{1}{6} + 3\frac{11}{12} = 9\frac{1}{12}$

d)  $6\frac{7}{15} + 3\frac{3}{5} = 10\frac{1}{15}$

$8 + \frac{11}{12} + \frac{2}{12} = 9\frac{13}{12} = 9\frac{1}{12}$

$9 + \frac{7}{15} + \frac{9}{15} = 9\frac{16}{15} = 10\frac{1}{15}$

5 A blue ribbon is  $2\frac{4}{9}$  metres long.

A yellow ribbon is  $3\frac{2}{3}$  metres long.

a) What is the total length of the blue and yellow ribbon?

$2\frac{4}{9} + 3\frac{2}{3} = 5 + \frac{4}{9} + \frac{4}{3} = 5 + \frac{4}{9} + \frac{12}{9} = 5 + \frac{16}{9} = 6\frac{7}{9}$  m

b) A red ribbon is  $1\frac{5}{18}$  metres longer than the yellow ribbon.

How long is the red ribbon?

red:  $1\frac{5}{18}$  longer than yellow

yellow:  $3\frac{2}{3}$

$3\frac{2}{3} + 1\frac{5}{18} = 4 + \frac{12}{18} + \frac{5}{18} = 4 + \frac{17}{18} = 4\frac{17}{18}$  m

6 Calculate the perimeter of the triangle.

$6\frac{11}{14} + 3\frac{4}{14} + 8\frac{8}{14} = 17 + \frac{23}{14} = 18\frac{9}{14}$  cm

7 Complete the calculation in three different ways.

$3\frac{1}{5} + 3\frac{4}{5} = 6 + \frac{11}{5} = 6\frac{11}{5}$

$2\frac{2}{5} + 4\frac{5}{5} = 6 + \frac{11}{5} = 6\frac{11}{5}$

$1\frac{3}{5} + 5\frac{2}{5} = 6 + \frac{11}{5} = 6\frac{11}{5}$

Compare answers with a partner.

8 Here are some number cards.

$3\frac{1}{6}$ ,  $2\frac{11}{12}$ ,  $2\frac{5}{6}$ ,  $3\frac{5}{6}$ ,  $4\frac{1}{12}$ ,  $4\frac{1}{3}$

$3\frac{2}{12}$ ,  $2\frac{11}{12}$ ,  $2\frac{10}{12}$ ,  $3\frac{10}{12}$ ,  $4\frac{1}{12}$ ,  $4\frac{4}{12}$

a) What is the greatest total you can make with two cards?

$4\frac{1}{2} + 4\frac{4}{12} = 8\frac{5}{12}$

b) What is the smallest total you can make with two cards?

$2\frac{10}{12} + 2\frac{11}{12} = 4\frac{21}{12}$  or  $4 + 1\frac{9}{12} = 5\frac{9}{12}$  or  $5\frac{3}{4}$

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# Maths sheets – Yr5

(Maths sheet 4) w/c 18 May

## Subtract mixed numbers

1 Complete the subtractions.  
Use the bar models to help you.

a)

$\frac{15}{8} - \frac{3}{8} = \frac{12}{8} = 1\frac{3}{2}$

b)

$\frac{7}{8} - \frac{3}{4} = \frac{1}{8}$

c)

$1\frac{1}{2} - \frac{3}{8} = 1\frac{1}{8}$

2 Dexter and Whitney are using number lines to work out  $1\frac{5}{6} - \frac{1}{3}$

Dexter's method

Whitney's method

What is the same and what is different about these methods?

Use one of the methods to work out  $1\frac{5}{8} - \frac{3}{16}$

$1\frac{5}{8} - \frac{3}{16} = \frac{15}{16}$

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3 Complete the subtractions.

a)  $3\frac{1}{4} - \frac{5}{24} = 3\frac{1}{24}$

b)  $3\frac{3}{16} - \frac{1}{8} = 3\frac{1}{16}$

c)  $2\frac{5}{6} - \frac{2}{3} = 2\frac{1}{6}$

d)  $7\frac{5}{6} - \frac{13}{24} = 7\frac{7}{24}$

e)  $4\frac{4}{9} - \frac{4}{27} = 4\frac{8}{27}$

f)  $6\frac{11}{12} - \frac{3}{4} = 6\frac{2}{12} = 6\frac{1}{6}$

4 A jug contains  $1\frac{2}{3}$  litres of orange juice.

Eva pours  $\frac{4}{15}$  litres into a glass.

How much orange juice is left in the jug?

$1\frac{2}{3} - \frac{4}{15} = 1\frac{10}{15} - \frac{4}{15} = 1\frac{6}{15} = 1\frac{2}{5}$

There are  $1\frac{2}{5}$  litres of orange juice left in the jug.

5 Find three different ways to complete the calculation.

$3\frac{4}{5} - \frac{3}{20} = 3\frac{1}{20}$

Are there any other ways to complete this calculation?

YES!

6 Three children take part in throwing competitions.  
Here is the table of results.

	Javelin	Shot Put	Discus
Dexter	$15\frac{1}{4}$ m	$7\frac{5}{12}$ m	$12\frac{3}{8}$ m
Amir	$13\frac{3}{8}$ m	$8\frac{1}{4}$ m	$12\frac{7}{8}$ m
Annie	$14\frac{1}{3}$ m	9 m	$11\frac{5}{12}$ m

Use the clues to complete the table.

- Annie's javelin throw is  $\frac{11}{12}$  m less than Dexter's.  $15\frac{1}{4} - \frac{11}{12} = 14\frac{5}{12} = 12\frac{11}{12}$
- Amir's shot put throw is  $\frac{3}{4}$  m less than Annie's.  $9 + \frac{3}{4} = 9\frac{3}{4} = 8\frac{1}{4}$
- Dexter's discus throw is  $\frac{1}{2}$  m less than Amir's.  $12\frac{7}{8} - \frac{1}{2} = 12\frac{6}{8} = 12\frac{3}{4}$

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