Y5

Remote Learning

ANSWER PACK

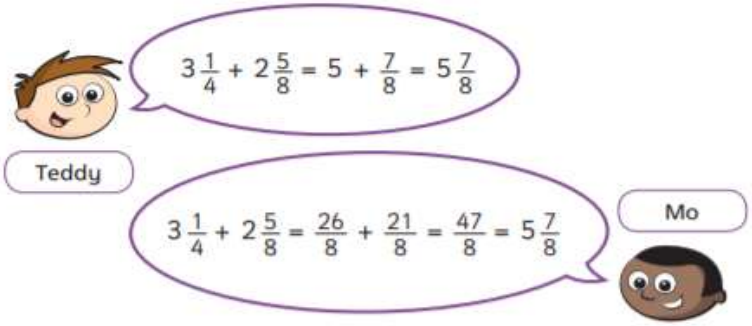
1st – 5th March

2021

Maths Answers: Lesson 1

Add mixed numbers

1 Teddy and Mo are adding mixed numbers.



Whose method do you prefer? various

Talk about it with a partner.

2 Complete the calculations.

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

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

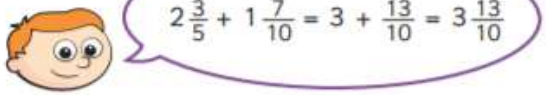
c) $1\frac{3}{4} + 3\frac{3}{20} = \boxed{4\frac{9}{10}}$

d) $1\frac{3}{16} + 4\frac{3}{4} = \boxed{5\frac{15}{16}}$

e) $4\frac{1}{4} + 2\frac{11}{16} = \boxed{6\frac{15}{16}}$

f) $1\frac{4}{15} + 3\frac{2}{3} = \boxed{4\frac{14}{15}}$

3



How can Ron improve his answer?

$\frac{13}{10} = 1\frac{3}{10}$ so $3\frac{13}{10} = 4\frac{3}{10}$

4 Complete the additions.

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

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

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

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

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?

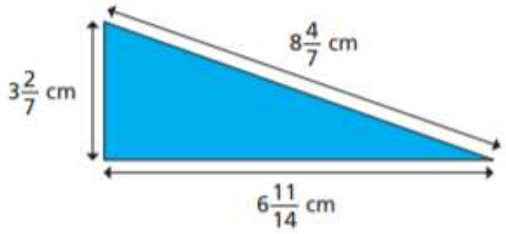
$6\frac{1}{9}$ m

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

How long is the red ribbon?

$4\frac{17}{18}$ m

6 Calculate the perimeter of the triangle.



$18\frac{9}{14}$ cm

7 Complete the calculation in three different ways.

e.g.

$1\frac{1}{5} + 5\frac{8}{15} = 6 + \frac{11}{15} = 6\frac{11}{15}$

$3\frac{2}{5} + 3\frac{5}{15} = 6 + \frac{11}{15} = 6\frac{11}{15}$

$1\frac{4}{5} + 4\frac{14}{15} = 6 + \frac{11}{15} = 6\frac{11}{15}$

Compare answers with a partner.

8 Here are some number cards.

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

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

$8\frac{5}{12}$

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

$5\frac{3}{4}$

Red Tasks

Varied Fluency

1a. $2\frac{2}{3}$

2a. B

3a. $1\frac{1}{4} + 2\frac{5}{8} = 3\frac{7}{8}$

4a. A. $7\frac{2}{6}$; B. $7\frac{1}{6}$

Reasoning and problem solving

1a. B is the odd one out as it is the only answer that is equivalent to a whole.

2a. No, the correct answer is $4\frac{4}{5}$. She has added the denominators.

3a. $1\frac{2}{8}$

Gold Tasks

Varied Fluency

9a. $4\frac{3}{4}$

10a. A

11a. $7\frac{1}{3} + 1\frac{7}{8} = 9\frac{5}{24}$ or $7\frac{1}{6} + 1\frac{7}{8} = 9\frac{1}{24}$

12a. A. $6\frac{7}{30}$; B. $7\frac{4}{30}$

Reasoning and problem solving

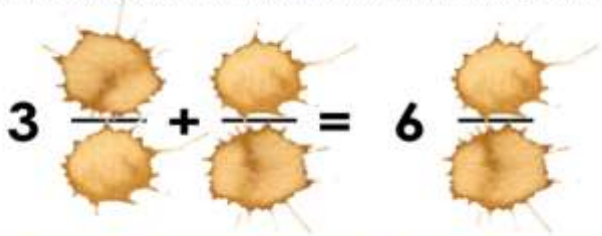
7a. B is the odd one out totalling a whole number. The rest give a mixed number total.

8a. No, the correct answer is $5\frac{3}{5}$. $\frac{16}{8}$ is equivalent to 2. $3\frac{6}{10} + 2 = 5\frac{6}{10}$ which is equivalent to $5\frac{3}{5}$.

9a. Various answers, for example: $\frac{11}{3}$, $3\frac{2}{3}$, $2\frac{6}{9}$, $\frac{6}{2}$

Deepen the moment

2. Mrs Clarke has spilled coffee over Lisa's maths book whilst marking her work.



15	1	18	20	8	12
14	4	5	17	28	24

Use the digit cards to explore the different calculations Lisa could have completed if all the denominators were different and the second fraction was improper.

Various answers, for example: $3\frac{1}{4} + \frac{18}{5} = 6\frac{17}{20}$

Maths Answers: Lesson 2

Subtract fractions

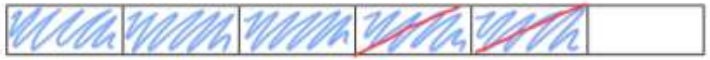
1 Complete the subtractions.

Use the bar models to help you.

a)

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

b)



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

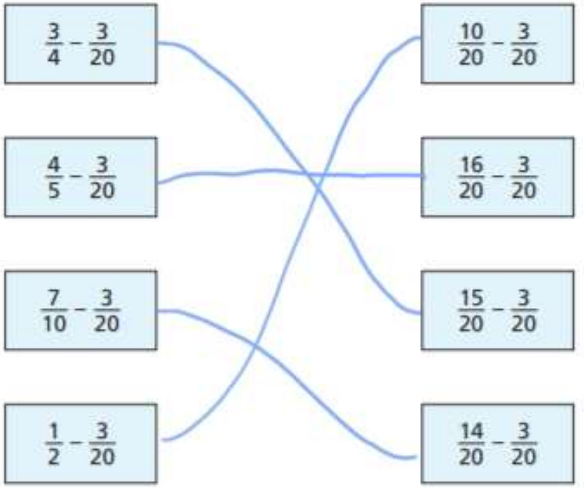
c)

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

d)

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

2 Match the equivalent calculations.



3 Jack walks $\frac{7}{9}$ km to school.

Aisha walks $\frac{2}{3}$ km to school.

How much further does Jack walk than Aisha?

Jack walks $\boxed{\frac{1}{9}}$ km further than Aisha.

4 Complete the subtractions.

a) $\frac{7}{8} - \frac{1}{16} = \boxed{\frac{13}{16}}$

$\frac{5}{8} - \frac{1}{16} = \boxed{\frac{9}{16}}$

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

$\frac{1}{8} - \frac{1}{16} = \boxed{\frac{1}{16}}$

b) $\frac{6}{7} - \frac{2}{21} = \boxed{\frac{16}{21}}$

$\frac{5}{7} - \frac{4}{21} = \boxed{\frac{11}{21}}$

$\frac{4}{7} - \frac{6}{21} = \boxed{\frac{6}{21}}$

$\frac{3}{7} - \frac{8}{21} = \boxed{\frac{1}{21}}$

What do you notice?

5 On Saturday, Alex cycles for $\frac{2}{3}$ of an hour.

On Sunday, she cycles for $\frac{5}{12}$ of an hour.

a) How many more hours does Alex cycle on Saturday than Sunday?

$\boxed{\frac{1}{4}}$ of an hour

b) How many more minutes does Alex cycle on Saturday than Sunday?

$\boxed{15}$ minutes

6 Here are some fraction cards.

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

a) Which two fractions have a difference of $\frac{1}{4}$?

$\boxed{\frac{3}{4}} - \boxed{\frac{1}{2}} = \frac{1}{4}$

b) Which two fractions have a difference of $\frac{1}{2}$?

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

c) Which two fractions have a difference of $\frac{1}{12}$?

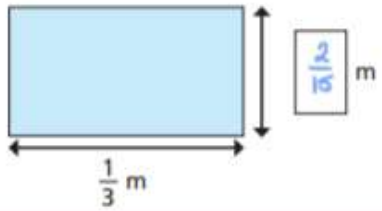
Give two possible pairs.

$\boxed{\frac{11}{12}} - \boxed{\frac{5}{6}} = \frac{1}{12}$

$\boxed{\frac{5}{6}} - \boxed{\frac{3}{4}} = \frac{1}{12}$

7 The perimeter of the rectangle is $\frac{14}{15}$ m.

Work out the missing length.



Red Tasks

Varied Fluency

1a. C

2a. $\frac{2}{6}$ or $\frac{1}{3}$

3a. A. $\frac{2}{12}$ or $\frac{1}{6}$, B. $\frac{4}{10}$ or $\frac{2}{5}$

4a. $\frac{3}{8}$

Reasoning & Problem Solving

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

2a. Harry has subtracted the numerator before converting the fraction to twelfths The correct difference is $\frac{1}{6}$.

3a. Ben has the most pie left because he has $\frac{6}{10}$ or $\frac{3}{5}$ and Lisa has $\frac{4}{10}$ or $\frac{2}{5}$.

Gold Tasks

Varied Fluency

9a. B

10a. $\frac{5}{24}$

11a. A. $\frac{33}{36}$ or $\frac{11}{12}$, B. $\frac{12}{40}$ or $\frac{3}{10}$

12a. $\frac{8}{30}$ or $\frac{4}{15}$

Reasoning & Problem Solving

7a. $\frac{10}{15} - \frac{2}{6} = \frac{1}{3}$

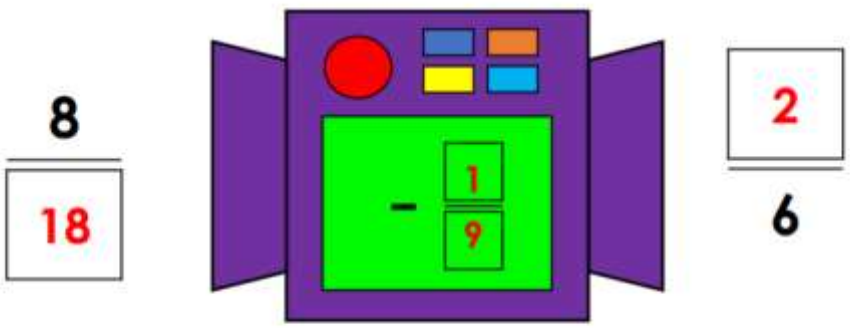
8a. Ivan has subtracted the numerator and denominator from the starting fraction instead of finding a common denominator. The correct answer is $\frac{13}{36}$.

9a. Tess has the most brownies left because she has $\frac{14}{30}$ or $\frac{7}{15}$ and Lee has $\frac{4}{15}$.

Deepen the moment

1. Explore the possible inputs, outputs and functions of the 'Fraction Subtraction Contraption'. All the denominators are different.

Various answers, for example:



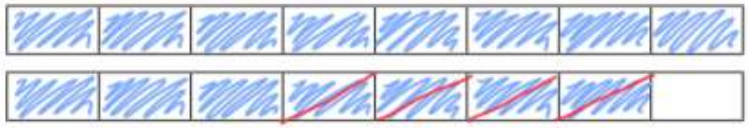
Maths Answers: Lesson 3

Subtract mixed numbers

1 Complete the subtractions.

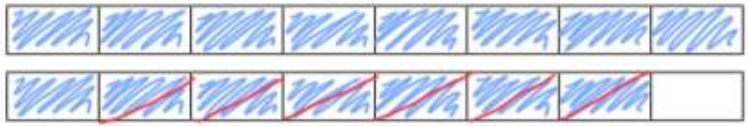
Use the bar models to help you.

a)



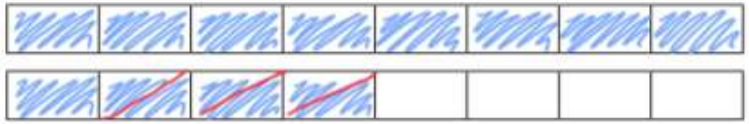
$1\frac{15}{8} - \frac{1}{2} = \boxed{1\frac{3}{8}}$

b)



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

c)

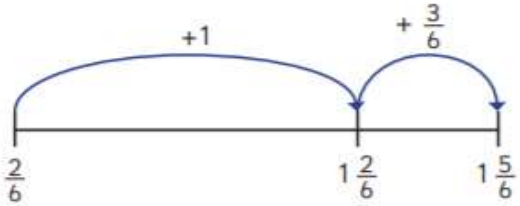


$1\frac{1}{2} - \frac{3}{8} = \boxed{1\frac{1}{8}}$

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

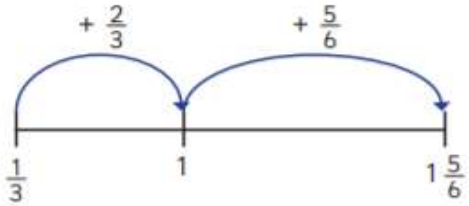
Dexter's method

$\frac{1}{3} = \frac{2}{6}$



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

Whitney's method



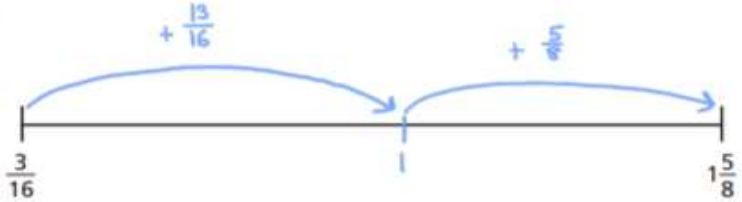
$\frac{2}{3} = \frac{4}{6}$

$\frac{4}{6} + \frac{5}{6} + \frac{9}{6} = 1\frac{1}{2}$

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

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

e.g.



$\frac{13}{16} + \frac{10}{16} = \frac{23}{16} = 1\frac{7}{16}$

$1\frac{5}{8} - \frac{3}{16} = \boxed{1\frac{7}{16}}$

3 Complete the subtractions.

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

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

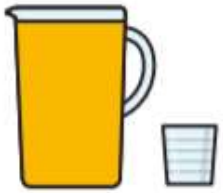
c) $2\frac{5}{6} - \frac{2}{3} =$ $2\frac{1}{6}$

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

4 A jug contains $1\frac{3}{5}$ litres of orange juice.



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

How much orange juice is left in the jug?

There are $1\frac{1}{3}$ litres of orange juice left in the jug.

5 Find three different ways to complete the calculation.

e.g.

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

$3\frac{3}{5} - \frac{11}{20} = 3\frac{1}{20}$

$3\frac{2}{5} - \frac{7}{20} = 3\frac{1}{20}$

Are there any other ways to complete this calculation?

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.
- Amir's shot put throw is $\frac{3}{4}$ m less than Annie's.
- Dexter's discus throw is $\frac{1}{2}$ m less than Amir's

Red Tasks

Varied Fluency

1a. B. $1\frac{3}{6}$ or $1\frac{1}{2}$

2a. $2\frac{6}{10}$ or $2\frac{3}{5}$

3a. B

Reasoning & Problem Solving

1a. He has added the numerators instead of subtracting them. The correct answer is $2\frac{1}{3}$.

2a. $3\frac{2}{4}$ or $3\frac{1}{2}$

3a.

$6\frac{7}{8}$	$6\frac{1}{4}$	$6\frac{2}{4}$	$6\frac{3}{4}$
$6\frac{3}{4}$	$6\frac{2}{4}$	$6\frac{3}{8}$	$6\frac{4}{8}$
$6\frac{5}{8}$	$6\frac{6}{8}$	$6\frac{5}{8}$	$6\frac{1}{4}$

Gold Tasks

Varied Fluency

7a. C

8a. A. $4\frac{5}{12}$; B. $2\frac{1}{12}$

9a. A

Reasoning & Problem Solving

7a. No, she should be left with $3\frac{13}{20}$ but she has subtracted without finding the common denominator.

8a. $3\frac{5}{24}$

9a.

$3\frac{3}{6}$	$3\frac{2}{3}$	$3\frac{1}{3}$	$3\frac{4}{18}$
$3\frac{5}{6}$	$3\frac{7}{12}$	$3\frac{7}{8}$	$3\frac{1}{12}$
$3\frac{4}{6}$	$3\frac{5}{18}$	$3\frac{8}{12}$	$3\frac{3}{8}$

Deepen the moment...

2. Explore the different ways to arrange the digit cards to make the statement true if no denominator is the same.

Various answers, for example:

$$1\frac{9}{10} - \frac{2}{5} > 1\frac{5}{8} - \frac{1}{4}$$

1	2	3	4	5
6	7	8	9	10

Maths Answers: Lesson 4

Subtract – breaking the whole

1 Complete the subtractions.

Use the bar models to help you.

a)

$2\frac{1}{2} - \frac{7}{12} = 1\frac{11}{12}$

b)

$2\frac{1}{3} - \frac{7}{12} = 1\frac{3}{4}$

c)

$2\frac{1}{4} - \frac{7}{12} = 1\frac{2}{3}$

2 a) Complete the subtractions.

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

$3\frac{1}{4} - \frac{2}{8} = 3$

$3\frac{1}{4} - \frac{3}{8} = 2\frac{7}{8}$

$3\frac{1}{4} - \frac{4}{8} = 2\frac{3}{4}$

b) At what point did the answer break the whole? Why?

c) Tick the calculations that will break the whole.

$3\frac{1}{2} - \frac{9}{10}$ ✓ $\quad 7\frac{3}{4} - \frac{1}{8} \quad 6\frac{11}{12} - \frac{2}{3} \quad 4\frac{2}{5} - \frac{7}{15}$ ✓

3 Complete the subtractions.

a) $3\frac{1}{5} - \frac{7}{15} = 2\frac{11}{15}$

b) $3\frac{1}{16} - \frac{5}{8} = 2\frac{7}{16}$

c) $4\frac{5}{12} - \frac{5}{6} = 3\frac{7}{12}$

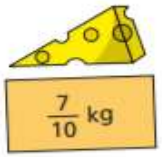
d) $2\frac{1}{6} - \frac{5}{12} = 1\frac{3}{4}$

e) $3\frac{2}{9} - \frac{13}{18} = 2\frac{1}{2}$

f) $3\frac{4}{9} - \frac{13}{27} = 2\frac{26}{27}$

4 Here are some ingredients.

Potatoes



Cheese

Carrots

a) How much more do the carrots weigh than the cheese?

The carrots weigh ☐ kg more than the cheese.

b) Jack uses $\frac{17}{20}$ kg of carrots.

How many kilograms of carrots does he have left?

Jack has ☐ kg of carrots left.

c) Jack uses all the cheese and the same amount of potatoes.

How much do the leftover potatoes weigh?

The leftover potatoes weigh ☐ kg.

5 Eva is doing the long jump.

On her 1st attempt, she jumps $3\frac{2}{9}$ m.

Her 2nd attempt is $\frac{2}{3}$ m shorter than her first.

How far does Eva jump on her 2nd attempt?

Eva jumps ☐ m on her 2nd attempt.

6 **a)** The difference between a mixed number and a fraction is $\frac{7}{8}$

The fraction has a denominator of 16

What could the mixed number and the fraction be?

Give two possible answers.

☐ and ☐ ☐ and ☐

b) Talk to a partner about how you could find more answers.

Red Tasks

Varied Fluency

1a. A. $1\frac{1}{2} - \frac{3}{4} = \frac{3}{4}$

2a. $\frac{9}{10}$

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

4a. A. $\frac{7}{8}$ B. $2\frac{8}{9}$

Reasoning & Problem Solving

9a. C. $5\frac{1}{3} - \frac{10}{12} = 4\frac{1}{2}$

10a. $6\frac{23}{24}$

11a. $2\frac{20}{21}$

12a. A. $\frac{19}{35}$ B. $5\frac{43}{72}$ C. $2\frac{27}{28}$ D. $\frac{43}{65}$

Gold Tasks

Varied Fluency

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

2a. Lucie is incorrect. She has not reduced the whole number by the 1 she has exchanged for sixths.

3a. C is the odd one out. A and B = $7\frac{7}{12}$, C = $7\frac{5}{12}$.

Reasoning & Problem Solving

7a. $4\frac{3}{5} - \frac{9}{10} = 3\frac{21}{30}$ or $4\frac{9}{15} - \frac{18}{20} = 3\frac{21}{30}$

$4\frac{18}{30} - \frac{27}{30} = 3\frac{21}{30}$ or $4\frac{6}{10} - \frac{9}{10} = 3\frac{21}{30}$

8a. Myles is incorrect he has added 3 to the denominator and numerator of the 12ths rather than multiplying to find a common factor.

9a. B is the odd one out. A and C = $2\frac{7}{20}$. C = $3\frac{13}{20}$.

Deepen the moment...

1. Scrumptious Sweet Treats factory is busy making batches of their best-selling sweets. They have $2\frac{1}{5}$ sacks of sugar but they need at least $1\frac{1}{2}$ sacks left for the following day.

Blueberry Bonanzas
The fraction of sugar needed has a denominator that is a multiple of 4. It is greater than a quarter.

Tangy Twizzlers
The fraction of sugar needed has a single digit denominator and an even numerator.

Strawberry Swirls
The fraction of sugar needed has a denominator that is a multiple of 3 and greater than 3. The numerator is odd.

Use flexible partitioning and the clues to work out which sweets they can make a batch of today. They can make any combination of batches.

Various answers, for example: Strawberry Swirls = $\frac{3}{9}$ and Tangy Twizzlers $\frac{2}{6}$.

$2\frac{1}{5} - \frac{3}{9} = 1\frac{13}{15}$ $1\frac{13}{15} - \frac{2}{6} = 1\frac{8}{15}$

Maths Answers: Lesson 5

question	answer	marks
1	**560**	1
2	**569**	1
3	**24**	1
4	$\frac{10}{12}$ or $\frac{5}{6}$	1
5	$\frac{2}{5}$	1
6	**4557**	1
7	**5667**	1
8	**56**	1
9	**108**	1
10	**2562**	1
11	**3.4**	1
12	**3.8**	1
13	**18**	1
14	**87 089**	1
15	**39 100**	1
16	**832 488**	1
17	**144**	1
18	**5400**	1
19	**70**	1
20	**70.3**	1
21	$1\frac{3}{12}$ or $1\frac{1}{4}$	1
22	$\frac{4}{10}$ or $\frac{2}{5}$	1
23	$4\frac{3}{8}$	1
24	**7.62**	1
25	**7106**	2
26	**549 216**	2
27	**84**	2
28	**1469**	2
		Total 32

Deepen the moment...

Tips:

Make sure you find a common denominator. In this problem the common denominator would be 12..

Explanation:

Multiply the denominator by 4 to get to 12. Then multiply the numerator by 4. You get 8

2/3 = 8/12

Now you can add the numerators

8/12 + 7/12 = 15/12

This can also be presented as a mixed number

1 3/12

English Answers:

Lesson 1

1) When did the stranger call? In the morning

2) Which two words rhyme in stanza 3? flakes and makes

3) Find a synonym for 'blubbering' in stanza 6. crying

4) How do you know the writer was eating breakfast when the Sound Collector arrived? The writer was making toast and crunching on 'flakes', which could be cornflakes. The writer is eating breakfast foods.

5) Apart from cooking breakfast, how do you know that other things are happening in the house? The poem mentions washing up as well as having a bath. There is also the swishing of a curtain, which could mean the curtains are opening.

6) The last line of the poem says 'Life will never be the same'. Explain why. All the sounds have been taken away from them and life is very different without sound.

7) Why do you think the poet uses the word 'drumming' to describe the raindrops? Raindrops hitting the window can sound like somebody drumming.

.'

Lesson 2:

Task 1

1. On
2. Before
3. At
4. Due to
5. In Summer
6. Inside
7. Under
8. In honour of
9. Through
10. Across

Task 2

	Subordinating conjunction	Preposition
I ate desert <u>after</u> I had eaten my chips.	X	
No one is allowed in <u>after</u> 7 o'clock.		X
He watched it <u>after</u> his dinner.		x

	Subordinating conjunction	Preposition
I walked <u>until</u> I found a river.	X	
The flowers bloomed <u>until</u> the cold autumn weather.	X	
His shift doesn't end <u>until</u> the evening.		x

	Subordinating conjunction	Preposition
Nobody can leave <u>before</u> Wednesday.		X
It was taken <u>before</u> they saw it.	X	
<u>Before</u> she could shout, he had fallen over it.	x	

Task 3

You need to be there before bedtime

Lesson 3:

Send your mind map of words that you have found to your teacher.

Lesson 4:

Draft your build-up and send it to your teacher for feedback.

Lesson 5:

Draft your dilemma and send it to your teacher for feedback.

Reading for Productivity Answers: Music Lesson 1

Year 5 Answers

1. In the early 20th century, how did people listen and access music?
   Watching performances in music halls / the middle/upper class would buy sheet music to perform at home
2. What technological advancement meant that families felt a *'sense of community'*?
   The radio had become popular.
3. What were the main styles of music during World War Two?
   Jazz, swing and big band.
4. Why do you think Flanagan and Allen's songs were popular?
   They poked fun at the Nazis. They were light-hearted.
5. What was the main reason for World War Two songs being written?
   To keep spirits up. They focussed on hope and better times to come.
6. What was the main message from the famous song by Vera Lynn, 'We'll Meet Again."?
   This song was about reunions with loved ones when the war was over.

Reading for Productivity Answers: Geography Lesson 2

1. Over 50,000 flower workers benefit from Fairtrade.

2. Kenya, Ethiopia, Tanzania, Uganda

3. The Fairtrade minimum wage means that farmers cannot be paid below a certain amount.

4. Fairtrade flower farmers must limit the amount of chemicals and pesticides they use on their farms.

5. Kenya

6.

Reading for Productivity Answers: Science Lesson 3

Year 5

1. What is the name of heat energy?
   Thermal energy
2. What type of friction occurs when a person rubs their hands together to produce heat?
   Kinetic friction
3. What type of friction occurs when a boat moves along the surface of the water?
   Fluid friction
4. What is hydroplaning?
   When cars go too fast on puddles of water due to reduced friction
5. What is used to reduce friction?
   Lubricants, like grease and oil or using balls/wheels.
6. What does coefficient friction mean?
   The roughness of the objects' surfaces and the force applied between the two objects

Reading for Productivity Answers: Art Lesson 5

1. Bronze
2. Castleford, Yorkshire
3. He was injured at the Battle of Cambrai
4. The artist worked straight on material without using moulds. Marks left from carving tools can be seen on the material.
5. A range of different answers: To experience different cultures and their art styles which will influence his own work.
6. Although the artist may use shapes or colours that don't physically represent the subject, it is still possible to easily recognise what the art is portraying.
7. 4.9 metres wide and 2.4 metres high..