

Maths Planning and Ideas



Week Commencing: 11.05.20

Year Group: Year 6

This week, we are going to be revisiting some of the key learning that the children will need as they prepare for their next year of schooling. This may mean that they are consolidating learning that they already understand or are perhaps having another go at some of the trickier topics. The subject areas may also jump around a little but this sequence of lessons has been put together in order to support our oldest children as much as possible before they head to secondary school.

	Monday	Tuesday	Wednesday	Thursday	Friday
Area of Learning	Arithmetic LC: Can you review your arithmetic understanding?	LC: Can you simplify fractions?	LC: Can you compare and order fractions?	LC: Can you add and subtract fractions?	LC: Can you add and subtract with mixed number fractions?
	<p><i>For these lessons, we will be using the Home Learning Section of the White Rose Maths Scheme and website: https://whiterosemaths.com/homelearning/year-6/</i></p> <p><i>Each day there will be a short video to watch and activities to complete, which will be provided below. The dates of these lessons may not match the date that chn are completing the work so please check to make sure that you have selected the correct lesson, shown in green on this plan.</i></p> <p><i>Any problems, just let Mrs Shepherd know!</i></p>				
Activity	Starter: Complete the 10 mental maths questions for Monday (provided below) Main Activity	Starter: Complete the 10 mental maths questions for Tuesday (provided below) Main Activity Watch the video for Summer Term Week 3 (wb 04.05.20) – Lesson 1 to help refresh	Starter: Complete the 10 mental maths questions for Wednesday (provided below) Main Activity Watch the video for Summer Term Week 3 (wb 04.05.20) – Lesson 2	Starter: Complete the 10 mental maths questions for Thursday (provided below) Main Activity Watch the video for Summer Term Week 3 (wb 04.05.20) – Lesson 3 to	Starter: Complete the 10 mental maths questions for Friday (provided below) Main Activity Watch the video for Summer Term Week 3 (wb 04.05.20) – Lesson 4 to help refresh your

The arithmetic portion of your Maths work is vital – it is your ability to answer a wide range of questions in a short amount of time that makes tackling the harder problems easier!

To review your understanding, you are going to complete an arithmetic test and mark it yourself.

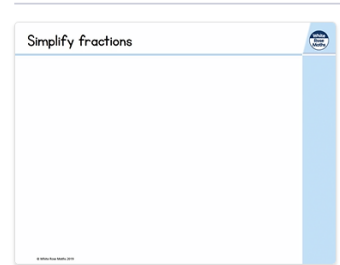
If there are any questions that you found tricky or you are not sure where you made a mistake, let an adult know so that you have an area to focus on in the coming weeks.

Also, get in touch with Mrs Payne or Mrs Shepherd to let us know which areas we need to work on and we'll try to include support for these within the work we set for you.

Independent Activity

your memory on how to simplify fractions:

Lesson 1 - Simplify fractions



Independent Activity

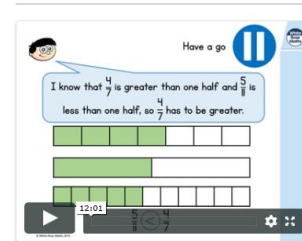
Remember, simplifying fractions is all about finding common factors, e.g. which times tables may contain 12 and 24? Is there a common factor between 16 and 40? This is where your times tables knowledge will prove very helpful – here is a factors challenge game for you to try as well:

<https://www.transum.org/Maths/Activity/Prime/Default.asp>

Have a go at the questions below – some will be harder than others.

to help refresh your memory on how to order and compare fractions:

Lesson 2 - Compare and order fractions



Independent Activity

When comparing and ordering fractions, it is important to remember the make the work a little bit easier by converting the fractions so that they have the same denominator – this will make it easier to see the comparisons!

Throughout this activity you will be using your knowledge of factors as well as multiples – here is another game to help you practise:

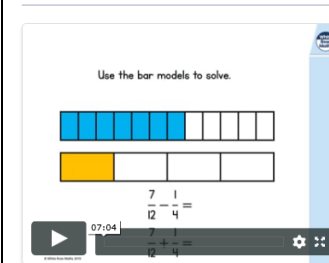
https://www.sheppardsoftware.com/mathgames/multiple/multiple_frenzy.htm

Have a go at the questions below – some will be harder than others.

Extension

help refresh your memory on how to add and subtract fractions:

Lesson 3 - Add and subtract fractions



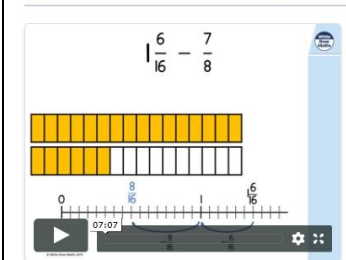
Independent Activity

Adding and subtracting fractions can be simple when the denominator is the same, but when they are different, you will need to practise your converting skills again, just like you did yesterday!

Have a go at the questions below – some will be harder than others.

memory on how to add and subtract mixed number fractions:

Lesson 4 - Mixed addition and subtraction



Independent Activity

Mixed number fractions are sometimes a little bit daunting but the process of adding and subtracting is still the same.

If you are unsure about these, have a go at this activity to recap how to convert improper to mixed number fractions:

https://www.mathplayground.com/fractions_mixed.html

Have a go at the questions below – some will be harder than others.

Complete the arithmetic test linked below:

<https://www.twinkl.co.uk/resource/t2-m-1192-ks2-arithmetic-practice-tests-year-6-bumper-pack>

This will open up a folder containing many different options – please complete Arithmetic Paper 6.

You should aim to give yourself between 35-40mins to complete the paper. The answers are also provided so that you can mark your work...but no sneak peaks beforehand please! 😊

Have a go at using the same method when using mixed number fractions too!

Starter Activities

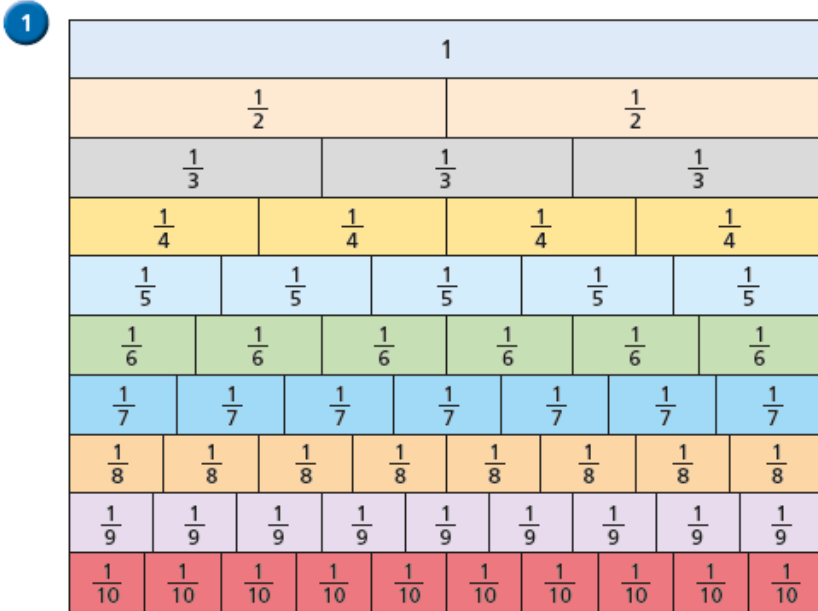
Monday	Tuesday	Wednesday	Thursday	Friday
1. 1154×28	11. 7724×29	21. 2030×34	31. 6187×36	41. 1700×35
2. $65.39 + 29.54$	12. $12.12 + 36.55$	22. $124.55 + 17.84$	32. $400.03 + 619.98$	42. $879.21 + 800.08$
3. $66 + ? = 106$	13. $13 + ? = 193$	23. $24 + ? = 224$	33. $58 + ? = 248$	43. $97 + ? = 317$
4. $150 = ? + 30$	14. $210 = ? + 60$	24. $350 = ? + 25$	34. $525 = ? + 60$	44. $900 = ? + 425$
5. If 5%=10, 45%= ?	15. If 5%=18, 55%= ?	25. If 5%=48, 15%= ?	35. If 5%=22, 50%= ?	45. If 5%=34, 20%= ?
6. $1528=1000+500+20+?$	16. $241=? + 40+1$	26. $6523=6000+ ? + 20 + 4$	36. $3898=3000+ ? + 98$	46. $7004=7000 + ?$
7. Find n in $3n+3=15$	17. Find n in $4n-8=48$	27. Find n in $6n+6=72$	37. Find n in $5n-7=93$	47. Find n $10n+12=3012$
8. Find the mean of 15, 13 and 19	18. Find the mean of 17, 12 and 21	28. Find the mean of 31, 42 and 53	38. Find the mean of 62, 45 and 83	48. Find the mean of 124, 172 and 189
9. $0.24 - 0.06$	19. $0.87 - 0.07$	29. $0.62 - 0.32$	39. $0.46 - 0.17$	49. $0.85 - 0.02$
10. $3500 \div 28$	20. $11,144 \div 28$	30. $14,308 \div 28$	40. $11,284 \div 28$	50. $20,132 \div 28$

If you cannot print off these questions, please don't worry – simply have a go at writing the calculations and answers in your book or on a piece of paper!

Monday 11.05.20

Arithmetic Paper available to download using link provided

Tuesday 12.05.20



Use the fraction wall to write each fraction in its simplest form.

a) $\frac{4}{6} = \square$

c) $\frac{6}{8} = \square$

b) $\frac{8}{10} = \square$

d) $\frac{4}{8} = \square$

- 2 a) Use a fraction wall to explain why $\frac{7}{10}$ does not simplify.

- b) Find three more fractions on the fraction wall that cannot be simplified.

- 3 Mo, Eva and Ron are trying to simplify $\frac{5}{20}$



Mo

I can't simplify this because one number is odd and the other is even.

I can't simplify this because only one number can be halved.



Eva



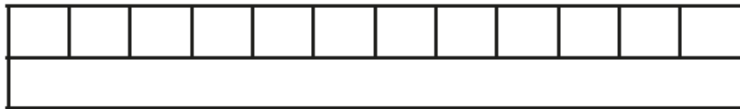
Ron

I can simplify any fraction.

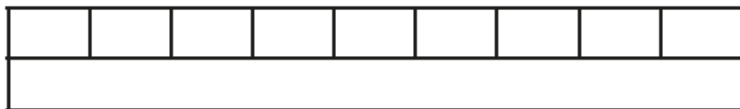
Do you fully agree, partly agree or completely disagree with each person?

Talk to a partner.

- 4 a) Draw lines on the bar model to show that $\frac{9}{12}$ is equal to $\frac{3}{4}$



- b) Complete each bar model and calculation.



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



$$\boxed{} = \frac{5}{15}$$

- 5 Simplify the fractions.

a) $\frac{4}{12} = \boxed{}$ b) $\frac{8}{12} = \boxed{}$ c) $\frac{40}{120} = \boxed{}$ d) $\frac{12}{4} = \boxed{}$

$\frac{4}{16} = \boxed{}$ $\frac{8}{16} = \boxed{}$ $\frac{40}{160} = \boxed{}$ $\frac{120}{4} = \boxed{}$

$\frac{4}{20} = \boxed{}$ $\frac{8}{20} = \boxed{}$ $\frac{40}{200} = \boxed{}$ $\frac{12}{400} = \boxed{}$

Describe and explain any patterns that you noticed.

- 6 Write 3 fractions that simplify to $\frac{3}{5}$

- 7 Teddy and Dora are both simplifying $\frac{30}{42}$

Teddy

$$\frac{30}{42} = \frac{15}{21} = \frac{5}{7}$$

Dora

$$\frac{30}{42} = \frac{5}{7}$$

- a) How do you think Dora was able to simplify the fraction in one step?
 b) Simplify these fractions in one step.

$$\frac{24}{30} = \boxed{} \qquad \frac{16}{20} = \boxed{}$$

$$\frac{56}{64} = \boxed{} \qquad \frac{99}{121} = \boxed{}$$

- 8 is a prime number. is a multiple of 10

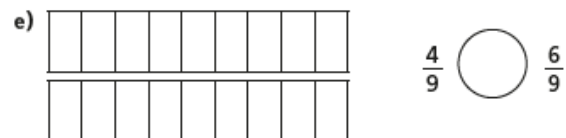
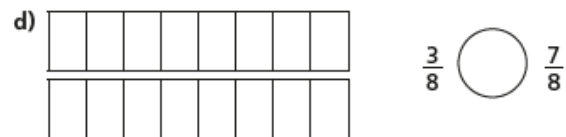
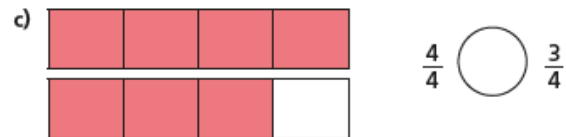
The fraction can be simplified.

What could each number be? Explain your reasoning.

Wednesday 13.05.20

1 Write $<$, $>$ or $=$ to compare the fractions.

Use the bar models to help you.



f) What do you notice about your answers?

g) Complete the sentence.

When the denominators are the same, the _____
the numerator, the _____ the fraction.

2 a) Colour the bar models to show the fractions.



b) Use the bar models to sort these fractions in order from greatest to smallest.



greatest

smallest

c) Order the fractions from smallest to greatest.



smallest

greatest

- 3 Amir is comparing the fractions $\frac{4}{15}$ and $\frac{3}{10}$

$$\frac{4}{15} = \frac{8}{30} \quad \frac{3}{10} = \frac{9}{30}$$

$\frac{9}{30}$ is greater than $\frac{8}{30}$

$\frac{3}{10}$ is greater than $\frac{4}{15}$

Explain Amir's method.

- 4 Ron and Rosie are practising penalties.

Ron scored 7 out of 10.

Rosie scored 23 out of 30



I did not miss as many as you, so I should take the penalties.

I scored more than you, so I should take penalties for the school team.



Compare fractions to explain who should take penalties for the school team.

- 5 Write $<$, $>$ or $=$ to compare the fractions.

a) $\frac{3}{4}$ ○ $\frac{5}{6}$

d) $\frac{3}{5}$ ○ $\frac{5}{7}$

b) $\frac{2}{3}$ ○ $\frac{5}{9}$

e) $\frac{9}{10}$ ○ $\frac{3}{4}$

c) $\frac{2}{3}$ ○ $\frac{7}{8}$

f) $\frac{9}{10}$ ○ $\frac{19}{20}$

Write $<$ or $>$ to compare the fractions.

a) $\frac{1}{7}$ ○ $\frac{1}{9}$

d) $\frac{11}{12}$ ○ $\frac{11}{11}$

b) $\frac{4}{5}$ ○ $\frac{4}{7}$

e) $\frac{19}{5}$ ○ $\frac{19}{6}$

c) $\frac{3}{13}$ ○ $\frac{3}{8}$

f) $\frac{107}{53}$ ○ $\frac{107}{40}$

Extension

7 Write $<$, $>$ or $=$ to complete each statement.

a) $\frac{2}{5} \bigcirc 1\frac{1}{3}$ b) $\frac{2}{5} \bigcirc \frac{6}{11}$ c) $3\frac{2}{3} \bigcirc \frac{11}{4}$

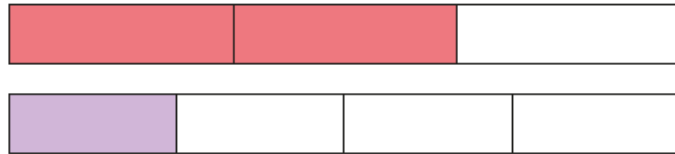
$1\frac{2}{5} \bigcirc \frac{1}{3}$ $1\frac{2}{5} \bigcirc 3\frac{6}{11}$ $11\frac{2}{9} \bigcirc \frac{101}{3}$

$1\frac{2}{5} \bigcirc 1\frac{1}{3}$ $3\frac{2}{5} \bigcirc 3\frac{6}{11}$ $11\frac{1}{9} \bigcirc \frac{100}{8}$

$\frac{12}{5} \bigcirc \frac{12}{3}$ $\frac{12}{5} \bigcirc \frac{36}{11}$ $27\frac{3}{4} \bigcirc \frac{111}{3}$

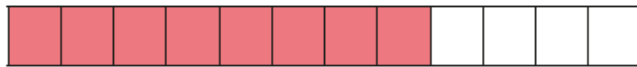
Thursday 14.05.20

1 Amir is using fraction strips to work out $\frac{2}{3} + \frac{1}{4}$

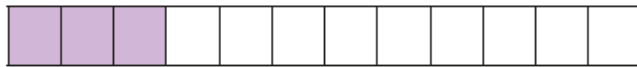


Amir says he needs to find a common denominator.

a) Complete Amir's method.



$$\frac{2}{3} = \frac{\square}{12}$$



$$\frac{1}{4} = \frac{\square}{12}$$

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

b) Show the addition on the fraction strip.



c) Could you have used a different denominator?

2 What common denominator can you use to add the fractions?

a) $\frac{2}{5} + \frac{1}{2}$ Common denominator =

b) $\frac{2}{3} + \frac{4}{5}$ Common denominator =

c) $\frac{7}{8} - \frac{1}{4}$ Common denominator =

d) $\frac{7}{9} - \frac{1}{6}$ Common denominator =

e) $\frac{11}{15} + \frac{3}{10}$ Common denominator =

3 Ron and Eva are working out $\frac{1}{4} + \frac{5}{6}$

Ron's method

$$\frac{1}{4} + \frac{5}{6} = \frac{3}{12} + \frac{10}{12} = \frac{13}{12}$$

Eva's method

$$\frac{1}{4} + \frac{5}{6} = \frac{6}{24} + \frac{20}{24} = \frac{26}{24}$$

a) What is the same about Ron's and Eva's methods?

b) What is different about their methods?

c) Which method do you prefer? Why?

4 Complete the calculations.

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

c) $\frac{1}{2} - \frac{1}{7} =$

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

d) $\frac{11}{18} + \frac{7}{12} =$

Extension

7 Complete the additions.

Give your answers as mixed numbers and as improper fractions.

a) $\frac{4}{5} + \frac{5}{4} =$ $=$ c) $\frac{9}{8} + \frac{8}{9} =$ $=$

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

What patterns do you notice?

8 Look at these additions.

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

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

$\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} =$

a) When does this pattern first give an answer greater than 2?

b) Do you think the pattern will ever give an answer greater than 100?

Friday 15.05.20

1 Work out the calculations.

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

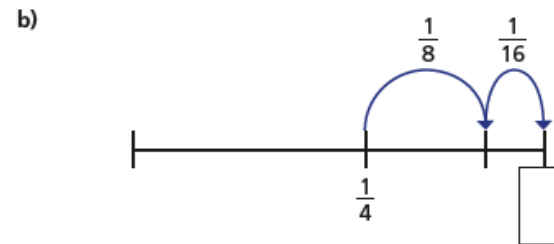
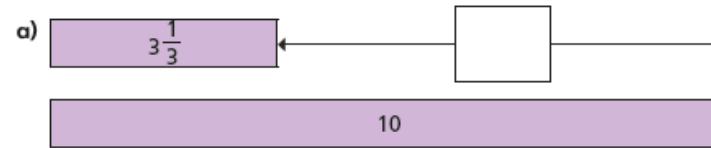
b) $2\frac{1}{4} - \frac{2}{3} =$

c) $3\frac{7}{10} - 2\frac{1}{4} =$

2 Complete the calculation.

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

3 Work out the missing fractions.



4 Complete the calculations.

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

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

c) $\frac{2}{5} + \frac{1}{5} +$ $= \frac{4}{3}$

d) $\frac{4}{5} =$ $-\frac{4}{5}$

5 Which of these are true and which are false?

Can you decide without having to do the additions or the subtractions?

Talk about your reasons with a partner.

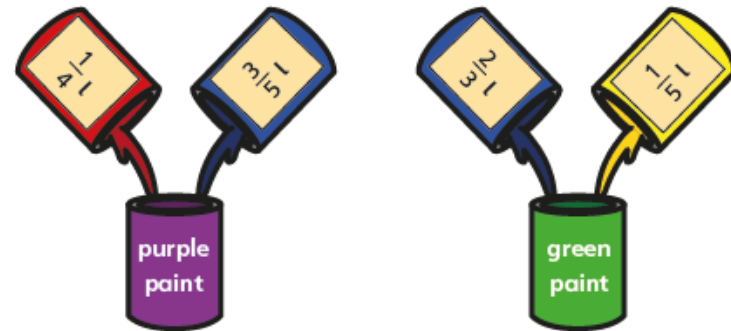
	True or false?
$2\frac{1}{3} + 3\frac{3}{4}$ is equal to $3\frac{1}{3} + 2\frac{3}{4}$	
$3\frac{3}{4} - \frac{1}{3}$ is less than $4\frac{3}{4} - 1\frac{1}{3}$	
$3\frac{3}{4} - 2\frac{1}{3}$ is equal to $3\frac{1}{3} - 2\frac{3}{4}$	

6 Complete the addition grid.

$1\frac{1}{4}$		$\frac{1}{4}$	$= 3\frac{3}{5}$
$\frac{1}{25}$	$1\frac{3}{20}$		$= 3\frac{39}{100}$
	$1\frac{1}{50}$	$1\frac{3}{100}$	$= 5\frac{9}{20}$
<input type="text"/>	<input type="text"/>	<input type="text"/>	

7 A painter uses the following mixtures.

How much more green paint does she have than purple paint?



Extension

- 8 Eva and Amir are working out this calculation.

$$\frac{1}{4} + \frac{25}{100} - \frac{2}{8} - \frac{9}{36}$$



This is going to be very difficult, because I can't find a common denominator.



I have found an easier way.

Find Amir's solution. Explain how this calculation can be solved.

Where can I complete further work?

[Twinkl](#) – Subscription service used by schools is offering a free premium service for teachers, parents and children to use whilst schools are closed. Enter the code **UKTWINKLHELPS** for access to worksheets, powerpoints and interactive games to support all areas of learning.

[Classroom Secrets](#) – Free Maths, Reading and Grammar home learning packs and interactive resources for all ages.

[White Rose Maths](#) – Free Maths home learning resources for all ages. Watch the videos and try the questions.

[Primary Stars](#) – Free Maths home learning packs for Year 1 and 2.

[BBC Bitesize Primary](#) – Free learning resources available for KS1 and KS2 across all subjects.

[I See Maths](#) – Free daily home maths lessons hosted by Gareth Metcalfe. Follow the link for videos, information and resources.

[Top Marks](#) – Free educational resources and games for English and Maths.

[ICT Games](#) – Free educational resources and games for English and Maths.