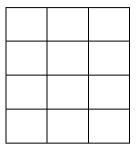


## Section A

## **Manipulating Fractions**

Grade G / F

1. (a) Tony has a rectangular garden, divided into square plots. A diagram of his garden is shown.



Tony uses  $\frac{1}{3}$  of his garden for growing vegetables.

(i) Shade  $\frac{1}{3}$  of the diagram.

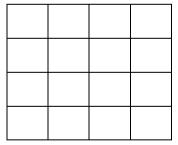
**(1)** 

(ii) What fraction of Tony's garden is **not** used for growing vegetables?

Answer .....

**(1)** 

(b) A diagram of Jim's garden is shown.



(i) Shade  $\frac{3}{4}$  of the diagram.

**(1)** 

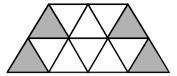
(ii) How many sixteenths are there in  $\frac{3}{4}$ ?

Answer .....

(1)

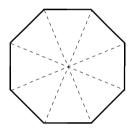
(Total 4 marks)

**2.** (a) The diagram shows a trapezium divided up by equal sized triangles.



What fraction of the trapezium is shaded?	
Give your answer in its simplest form.	
Answer	
	(2)

(b) The diagram shows a regular octagon.



(1)

Shade  $\frac{1}{4}$  of the octagon.

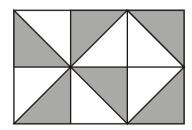
(Total 3 marks)

**(1)** 

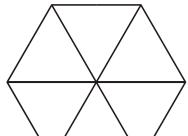
3. Express  $\frac{3}{18}$  as a fraction in its simplest form.



**4.** (a) What fraction of this shape is shaded?



Answer .....



(b) Shade  $\frac{2}{3}$  of this shape.

**(1)** 

(c)	Write down another fraction which is equivalent to	$\frac{2}{3}$
(0)	write down another fraction which is equivalent to	3

Answer .....

**(1)** 

(d)	Express $\frac{42}{70}$	as a fraction in	its simplest form.
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Answer .....

**(2)** 

(Total 5 marks)

5. Complete the equivalent fractions.

(a) 
$$\frac{3}{5} = \frac{\boxed{15}}{15}$$

**(1)** 

(b) 
$$\frac{2}{14} = \frac{4}{14}$$

**(1)** 

(c) 
$$\frac{6}{11} = \frac{24}{11}$$

**(1)** 

(Total 3 marks)

6. What fraction of this shape is shaded? (a)



Answer .....

**(1)** 

			opic 3	- 1
П	Fractions	and	Decim	als

(b)	Shade in $\frac{3}{4}$ of this shape.						
							(1)
(c)	Write down a different fracti	ion which is e	equivalen	$\frac{1}{1}$			
(6)	white down a different fracti		equi varen	4	•		
			Answer .			 	(1)
(d)	Express $\frac{40}{64}$ as a fraction in i	its simplest fo	orm.				(1)
		••••••	Answer.			 	
							(2) (Total 5 marks)
7. (a) C	Thange $2\frac{1}{4}$ into an improper f	raction.				 	
			Answer .			 	
							(1)
(b) C	Change $\frac{16}{3}$ into a mixed number	oer.					(1)
			Answer .			 	
			Answer .			 	
Success:			Answer .			 	(1)
							(1)



(Total 2 marks)

5

Section B Fractions of Amounts Grade F

1.	Work out $\frac{1}{4}$ of 12	
	Answer	(Total 2 marks)
2.	Find $\frac{3}{4}$ of 200	
	Answer	
3.	Work out $\frac{7}{8}$ of 32.	
	Answer	(Total 2 marks)
4.	Work out the following $\frac{2}{5}$ of 45.	
	Answer	(Total 2 marks)
5.	Work out $\frac{3}{7}$ of 28	
	Answer	

6.	(a)	What fraction of this shape is shaded?
		Give your answer in its simplest form.

	Answer	(2)
(b)	Find $\frac{7}{10}$ of £50	
	Answer £	
	(Total 4 n	(2) narks)

Success:			

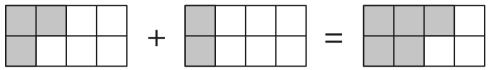
Target:			



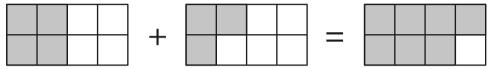
## Section C Using Common Denominators

Grade D / C

1. This diagram shows the fraction calculation  $\frac{3}{8} + \frac{1}{4} = \frac{5}{8}$ 



Write down the fraction calculation shown by this diagram.



Answer .....

(Total 1 mark)

**2.** Heather is revising fractions for her homework. This is how she answers one of the questions.

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

Heather is wrong.

Show the correct way to work out  $\frac{1}{2} + \frac{1}{3}$ 

(Total 3 marks)

3. Work out  $\frac{1}{4} + \frac{1}{8}$ 

Answer .....

(Total 2 marks)

	Work out $\frac{1}{2} + \frac{1}{5}$	
	Α	Answer(Total 2 mar
	Calculate $\frac{5}{8} - \frac{1}{4}$	
		(T. 4.10
Work	out $\frac{7}{8} - \frac{1}{2}$	(Total 2 mar
Work	Answer  out the value of $\frac{2}{5} + \frac{1}{4}$	(Total 2 mar
Work	Answer out the following $\frac{2}{5} - \frac{1}{4}$	(Total 2 mar
		Answer(Total 2 mar

9.	Find the value of $\frac{3}{4} - \frac{2}{5}$	
	Answer	(Total 2 marks)
10.	Work out $\frac{2}{5} - \frac{3}{8}$	(Total 2 marks)
	Answer	(Total 2 marks)
11.	Work out $2\frac{4}{5} + 3\frac{2}{3}$	
	Answer	
		(Total 3 marks)
12.	Work out $4\frac{2}{3} + 1\frac{3}{5}$	
	Answer	(Total 3 marks)

13.	Work out $4\frac{1}{5} - 1\frac{2}{3}$	
	Answer	 Fotal 3 marks)
14.	Find the value of $4\frac{2}{3} - 2\frac{3}{4}$	
	Answer	 Γotal 3 marks)
15.	Which of these fractions is closest to $\frac{1}{4}$ ? You <b>must</b> show your working.	
	$\frac{2}{5}$ $\frac{3}{10}$ $\frac{7}{20}$ $\frac{13}{40}$	
		<b>Total 3 marks</b> )

16.	Which of the	ese fractions is clos	test to $\frac{1}{3}$ ?			
		$\frac{1}{4}$	$\frac{3}{8}$	$\frac{4}{9}$	$\frac{7}{24}$	
		now all your workir				
				Answer		(Total 3 marks)
Succ	cess:			Target:		



## Section D Multiplying and Dividing Fractions Grade D / C

1.	Wor	k out $\frac{1}{6} \times \frac{3}{5}$	
		Answer	 Total 1 mark)
2.	Calc	vulate $\frac{3}{7} \times \frac{2}{5}$	
		Answer	
3.		Work out $\frac{3}{8} \times \frac{2}{9}$	(Total 1 mark)
		Answer	Total 1 mark)
4.	Wor	k out	
	(a)	0.2 × 0.4	
		Answer	. (1)
	(b)	$\frac{1}{3} \times \frac{4}{5}$	
		Answer	

(1)(Total 2 marks)

(a) Work out $4.6 - 2.38$ Answer  (b) Work out $\frac{2}{5} \times \frac{3}{4}$ Give your answer in its simplest form.  Answer	Work	out $\frac{3}{8} \div \frac{1}{3}$	
(a) Work out $4.6-2.38$		Answer	•••
(a) Work out $4.6 - 2.38$ Answer  (b) Work out $\frac{2}{5} \times \frac{3}{4}$ Give your answer in its simplest form.  Answer  (Total 3 ma	(a)		
(a) Work out $4.6 - 2.38$			Total 3 ma
(a) Work out $4.6 - 2.38$		Answer	
(a) Work out 4.6 – 2.38		Give your answer in its simplest form.	
(a) Work out 4.6 – 2.38	(b)	Work out $\frac{2}{5} \times \frac{3}{4}$	
(a) Work out 4.6 – 2.38		Answer	
(Total 1 m			
	(a)	Work out $4.6 - 2.38$	

(1)(Total 4 marks)

9.	(a)	Work out $\frac{3}{7} \times 28$	
		Answer	(2)
	(b)	Work out $0.3 \times 0.1$	(2)
		Answer	(1)
	(c)	Work out $\frac{3}{5} \div 6$	
		Answer(To	(2) otal 5 marks)
10.	(a)	Write down the reciprocal of 0.2	
		Answer	(2)
	(b)	Fill in the boxes to make these statements correct.  (i) $\frac{1}{5} \times  = 1$	
-		(ii) $\frac{3}{4} \times  = 1$	(1)

11.	Work out $1\frac{3}{4} \times 1\frac{4}{7}$	
	Answer	
		(Total 3 marks)
12.	Work out $4\frac{2}{3} \div 1\frac{3}{4}$	
	Answer	 (Total 3 marks)
13.	Work out the reciprocal of 1.5 Give your answer as a fraction in its simplest form.	
	Answer	
		(Total 2 marks)
Succ	cess: Target:	



Section E Worded Problems Grade C

l <b>.</b>	Danielle eats $\frac{3}{4}$ of a bar of chocolate every day.
	How many bars of chocolate does Danielle eat in six days?
	Answer
2.	A room has four identical walls. Each wall needs $\frac{3}{5}$ of a tin of paint.
	How many tins of paint are needed to paint all four walls?
	Answer
3.	There are 24 passengers on a bus.
	$\frac{1}{4}$ of the passengers are men.
	$\frac{1}{3}$ of the passengers are women.
	The rest of the passengers are children.
	How many passengers are children?
	Answer

(Total 3 marks)

4.	There are 40 sweets in a bag.
	Ben eats $\frac{1}{8}$ of the 40 sweets.
	Jerry eats $\frac{1}{5}$ of the 40 sweets.
	What fraction of the sweets do Ben and Jerry eat altogether?
	Answer
	(Total 3 marks)
5.	A supermarket sells 500 kg of potatoes.
	$\frac{3}{10}$ of the potatoes are sold in 5 kg bags.
	How many 5 kg bags of potatoes does the supermarket sell?
	Answer bags (Total 4 marks)
6.	On Monday Joe drinks $2\frac{1}{3}$ pints of milk.
	On Tuesday he drinks $1\frac{3}{4}$ pints of milk.
	Work out the total amount of milk that Joe on Monday and Tuesday.
	Answer

7.	Lucy makes some curtains for her living room and her bedroom.
	In the living room she uses $3\frac{2}{3}$ metres of material.
	In the bedroom she uses $2\frac{4}{5}$ metres of material.
	How many metres of material does she use altogether?
	Answer m
	(Total 3 marks)
8.	Shalina has two cats and has asked a neighbour to feed them while she is away on holiday.
0.	
	Each cat will eat $\frac{3}{4}$ of a tin of food every day.
	Shalina is going to be away for seven days.
	What is the least number of tins of food needed to feed <b>both</b> cats?
	Amannas
	Answer (Total 3 marks)

9.	Petra has $6\frac{3}{4}$ metres of ribbon.	
	She makes 6 blouses and uses $\frac{2}{5}$ of a metre of ribbon on each blouse.	
	How much ribbon does she have left?	
	Answer	n Total 4 marks)
10.	Linda uses $\frac{3}{5}$ of a tin of paint to paint a fence panel.  What is the <b>least</b> number of tins she needs to paint 8 fence panels?	
	Answer	 Total 3 marks)
Succ	cess: Target:	