

**Q1.**

Write 180 g as a fraction of 3 kg

Give your answer in its simplest form.

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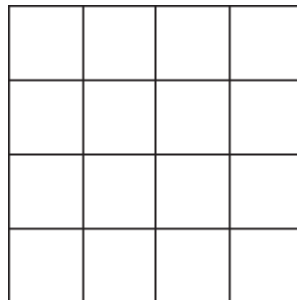
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Answer .....

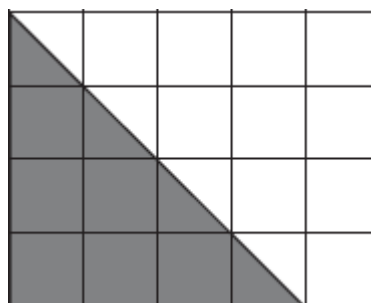
**(Total 2 marks)**

**Q2.(a)** Shade 75% of this grid.



**(1)**

(b) Here is another grid.



Which **two** fractions represent the shaded part of this grid?  
Circle your answers.

- $\frac{2}{5}$        $\frac{1}{3}$        $\frac{10}{20}$        $\frac{4}{12}$        $\frac{8}{20}$

(2)  
(Total 3 marks)

**Q3.**

Year 10 has 210 students.  
112 are boys.

Year 11 has 240 students.  
132 are boys.

Which year group has the greater proportion of boys?  
You **must** show your working.

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(Total 4 marks)

**Q4.** Here is some information about a group of 20 children.

	Boys	Girls
Left-handed	4	1
Right-handed	7	8

(a) What fraction of the 20 children are right-handed?  
Write your fraction in its simplest form.

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Answer .....

(3)

- (b) A child is chosen at random from the group.

Work out the probability that the child is a girl.

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Answer .....

(2)  
(Total 5 marks)

**Q5.** Eva owns a restaurant.

The table shows the number of customers on four days.

	Tuesday	Wednesday	Thursday	Friday
Lunch	25	22	27	31
Dinner	50	48	70	89
Total	75	70	97	120

- (a) How many **more** customers in total were there on Friday than on Thursday?

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Answer .....

(2)

- (b) She keeps a tally of the number of customers who order pudding each day.

Complete the table.

Day	Tally	Frequency
Tuesday	### ### ### II	17
Wednesday	### ### ###	

Thursday		
Friday		30

(2)

- (c) What fraction of **Friday's** customers ordered a pudding?  
Give your answer in its simplest form.

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Answer .....

(2)

- (d) Here is some information about Saturday.

<b>Number of customers</b>	150
<b>Number who order pudding</b>	50

Eva thinks the fraction of customers who ordered puddings on Saturday is greater than on Friday.

Is she correct?  
You **must** show your working.

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(3)

(Total 9 marks)

**Q6.** Smith and Jones both play for a local football team.

	<b>Goals scored</b>	<b>Games played</b>
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<b>Smith</b>	6	27
<b>Jones</b>	8	32

Which player has the higher proportion of goals scored per game played?  
 You **must** show your working.

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Answer .....

**(Total 3 marks)**

**Q7.** In a game players score points.

The table shows the number of points Alex scored in 50 games.

<b>Number of points</b>	<b>Number of games</b>
0	13
1	8
2	6
3	8
4	15
<b>Total = 50</b>	

(a) In what fraction of the 50 games did Alex score 4 points?  
 Give your answer in its simplest form.

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Answer .....

**(2)**

(b) Alex says he scored **more** than 100 points in total.

Show that he is correct.

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(3)  
(Total 5 marks)

**Q8.(a)** Matthew records the types of birds that visit his garden one morning.

(i) Complete the table.

Type of bird	Tally	Frequency
robin	IIII	
blackbird	III	
starling	### ## II	
sparrow	### IIII	
	<b>Total</b>	

(3)

(ii) What fraction of the birds are robins?  
Give your answer in its simplest form.

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Answer .....

(2)

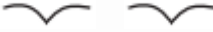
(b) This table shows the types of birds that Leah records in her garden one morning.

<b>Type of bird</b>	robin	blackbird	starling	sparrow
<b>Frequency</b>	4	6	5	3

She has finished the first row of a pictogram to show the results.

Complete the key and pictogram.

Key:  represents ..... birds

robin	
blackbird	
starling	
sparrow	

(4)

(c) 500 000 people record the types of birds in their gardens.  
In total, they record eight million birds.

On average, how many birds does each person record?

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Answer .....

(3)

(d) Here is a list of the birds at a bird table.

robin                  robin                  sparrow                  blackbird                  starling  
blackbird                  starling                  blackbird                  robin                  blackbird

One bird flies away.  
Another bird arrives at the bird table.

The new mode is robin.

What type of bird flies away and what type of bird arrives?  
Complete the table.

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	<b>Type of bird</b>
Flies away	
Arrives	

**(2)**  
**(Total 14 marks)**

**Q9.** John buys a phone.  
He looks at the cost of 60 applications (apps).

Cost of application	Number of applications
free (0p)	30
59p	16
99p	5
£1.29	2
£1.49	1
£1.99	6

(a) John buys all the applications costing £1.99

How much does he pay?

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Answer £ .....

**(2)**

(b) What fraction of the 60 applications are free?  
Give your answer in its simplest form.



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Answer .....

(2)

(c) What percentage of the 60 applications cost £1.99?

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Circle the correct answer.

6%      10%      16%      60%

(1)

(d) John wants to know the make of phone used by people in his class.

Write down a suitable data collection method.

Answer .....

(1)

(Total 6 marks)