

**Q1.** The cost of 30 litres of petrol is £28.80.  
Work out the cost of 1 litre of this petrol.

.....

**(Total 3 marks)**

**Q2.** A packet of popcorn costs £1.99  
Lisa buys 2 packets of popcorn.  
She pays with a £5 note.  
  
Work out how much change Lisa should get.

£ .....

**(Total 2 marks)**

**Q3.** (a) Change  $\frac{1}{4}$  to a decimal.

.....

(1)

(b) Find 10% of £50.

£ .....

(1)

(Total 2 marks)

**Q4.** (a) Write  $\frac{9}{10}$  as a decimal.

.....

(1)

(b) Write  $\frac{3}{4}$  as a percentage.

..... %

(1)

(c) Write 23% as a fraction.

.....

(1)

(d) Work out  $\frac{1}{5}$  of 50

.....

(1)

(Total 4 marks)

**Q5.** (a) Write 25.2 to the nearest whole number.

.....

(1)

(b) Write  $\frac{1}{5}$  as a decimal.

.....

(1)

(c) Write 27% as a fraction.

.....

(1)

(Total 3 marks)

**Q6.** (a) Work out  $90 \div 10$

.....

(1)

- (b) Write these numbers in order of size.  
Start with the smallest number.

2.8      4.71      0.6      13.4

.....

(1)


- (c) Write  $\frac{7}{10}$  as a decimal.

.....

(1)

(Total 3 marks)

**Q7.** This is the meter reading card for Mr Hassan's use of electricity.

<h2 style="margin: 0;">Electricity Meter Reading</h2>	<p style="text-align: right; margin: 0;"><b>Lightning Electric Co</b></p> <div style="text-align: center; margin: 10px 0;">  </div>					
Date of meter reading	Reading in units					
3 April 2012	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">0</td> <td style="width: 20px; text-align: center;">8</td> <td style="width: 20px; text-align: center;">9</td> <td style="width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">3</td> </tr> </table>	0	8	9	6	3
0	8	9	6	3		
30 June 2012	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">1</td> <td style="width: 20px; text-align: center;">0</td> <td style="width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">2</td> <td style="width: 20px; text-align: center;">5</td> </tr> </table>	1	0	6	2	5
1	0	6	2	5		

Here is part of Mr Hassan's bill.

<b>Electricity Bill</b>		<b>Lightning Electric Co</b>
		
<b>2 July 2012</b>		
<b>Current rates</b>		
Standing charge	15.07p for each day	
Cost per unit	11.85p	

Find the total cost of Mr Hassan's electricity bill.

£ .....

**(Total 6 marks)**

**Q8.** Ben buys 10 trays of bottled water for £5.99 a tray.

Each tray holds 12 bottles of water.

Ben goes to a car boot sale to sell his water.

In the morning he sells 80 bottles at 99p each.

In the afternoon he reduces the price and he sells all the bottles he has left for 75p each.

How much profit or loss does he make?

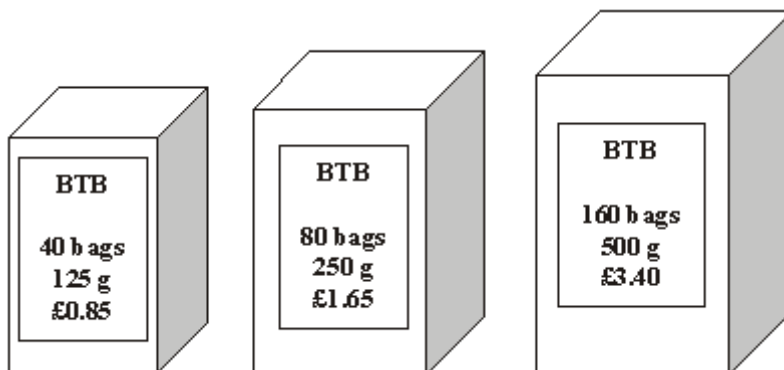


£ .....

(Total 5 marks)

**Q9.** The diagrams show three different size packets of Brew Tea Bags (BTB).

Diagram **NOT** accurately drawn



Tommy buys 200 bags of Brew Tea Bags (BTB).  
Tommy pays with a £10 note.

- (a) Which packets should Tommy buy to leave him with the most change from £10?

You must show your working.

(4)

A supermarket shelf has room for just 72 small packets of Brew Tea Bags (BTB).  
On Tuesday morning, when the supermarket opens, there are 57 packets on the shelf.  
During the day,  
125 packets are sold and  
2 cartons, each containing 48 packets, are used to keep the shelf stocked up.

- (b) Is there any space on the shelf to unpack another carton of 48 packets?

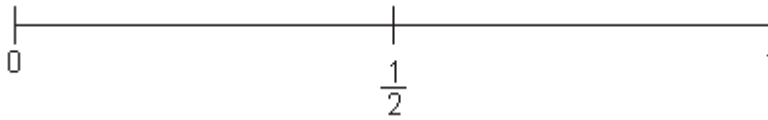
You must show your working.

(3)

(Total 7 marks)

**Q10.** Liam rolls an ordinary dice.

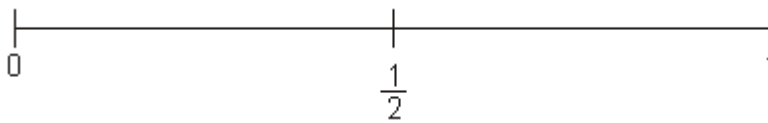
- (a) On the probability scale below, mark with a cross ( ) the probability that he gets a number less than 7.



(1)

A bag contains 3 blue counters and 1 red counter.  
Kenneth takes at random one counter from the bag.

- (b) On the probability scale below, mark with a cross (X) the probability that he takes a red counter.



(1)

Terry spins a coloured spinner.  
The probability that the spinner will land on green is 0.25

The probability that the spinner will land on yellow is 0.35

- (c) (i) Write 0.25 as a fraction.

.....

(1)

- (ii) Write 0.35 as a percentage.

.....

(1)

A weather forecaster says that the probability it will rain tomorrow is  $s$ .

- (d) Write down, in terms of  $s$ , the probability that it will **not** rain tomorrow.

.....

(1)  
(Total 5 marks)



**Q11.** (a) Work out the square of 3

.....

**(1)**

(b) Work out the value of  $2^6$

.....

**(1)**

(c) Write 80% as a fraction.  
Give your answer in its simplest form.

.....

**(2)**

(d) Work out 10% of £320

£ .....

**(2)**

- (e) Write these numbers in order of size.  
Start with the smallest number.

$$\frac{2}{5} \quad 45\% \quad 0.35 \quad \frac{3}{8}$$

.....

(2)  
(Total 8 marks)

**Q12.** Work out  $\text{£}1.70 \times 5$

£ .....

(Total 1 mark)

**Q13.** (a) Write 92% as a decimal.

.....

(1)

(b) Write 3% as a fraction.

.....

(1)

(c) Work out 5% of 400 grams.

..... grams

(2)

(Total 4 marks)

**Q14.** The total cost of these 2 pens is 60p.



Work out the total cost of 5 of these pens.  
Give your answer in pounds.

£ .....

**(Total 3 marks)**

- Q15.** (a) Write these numbers in order of size.  
Start with the smallest number.

17    6    168    24

.....

**(1)**

- (b) Write these numbers in order of size.  
Start with the smallest number.


1.8    3.71    0.5    12.4

.....

**(1)****(Total 2 marks)**

- Q16.** Complete this bill.

Michael's Cycle Repairs
-------------------------

			
Description	Number	Cost of each item	Total
Brake blocks	4	£4.12	£16.48
Brake cables	2	£5.68	£.....
Pedals	2	£.....	£45.98
Labour charge $1\frac{1}{2}$ hours at £12.00 an hour			£.....
<b>Total</b>			£.....

(Total 4 marks)

Q17.

<b>Gift shop</b>	
<u>Price list</u>	
Key ring	£3.20
Hat	£3.99
Pencil case	£2.70
Ruler	45p
Pen	60p
Pencil	

Keith buys 3 pens.

(a) Work out the total cost.

£ .....

(2)

Simon buys a pencil case, a ruler and a pen.  
He pays with a £5 note.

(b) Work out how much change he should get.

£ .....

(3)

The gift shop also sells pencils.

The price of a pencil is  $\frac{2}{3}$  of the price of a pen.

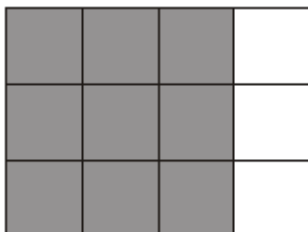
(c) Work out the price of a pencil.

..... p

(2)

(Total 7 marks)

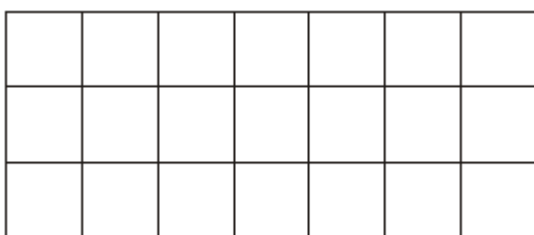
**Q18.** (a) Write down the fraction of this shape that is shaded.  
Give your fraction in its simplest form.



.....

(2)

(b) Shade  $\frac{2}{7}$  of this shape.



(1)

(c) Write  $\frac{3}{10}$  as a decimal.

.....

(1)

(d) Write 0.39 as a fraction.

.....

(1)

(Total 5 marks)

**Q19.**

<b>Cinema tickets</b>	
Adult ticket:	£8.65

Child ticket:	£4.90
Senior ticket:	£5.85

Tony buys one child ticket and one senior ticket.

(a) Work out the total cost.

£ .....

(1)

Stephanie buys adult tickets only.  
The total cost is £60.55

(b) How many adult tickets does she buy?

.....

(2)

Kamala buys one adult ticket and two child tickets.  
She pays with a £20 note.

(c) How much change should she get?

£ .....

(3)

(Total 6 marks)




Q20.

Item	Costs (£)
Motor oil 1l	2.50
Wiper blades 1	8.75
Brake Pads 1	14.85
Antifreeze 1l	3.99
Hydraulic Fluid 1l	5.99
Spark Plugs	1.75

Mr Smith had his car serviced.

He had to pay for a 15 000 mile service, 3 litres of oil and 4 spark plugs.

Complete his bill, and work out the total amount to pay.

<h1>Gary's Garage</h1>			
Item	Number of items	Cost of one item	Total
15 000 mile Service (labour charge)	1	£75.50	£75.50
Motor oil 1l			
Spark plugs			
Total			£ .....
VAT at $17\frac{1}{2}\%$ of Total			£ .....
Total amount to pay			£ .....

(Total 6 marks)

**Q21.**

Susie has one pound and sixty pence.

Her friend, Katie, has two pounds and five pence.

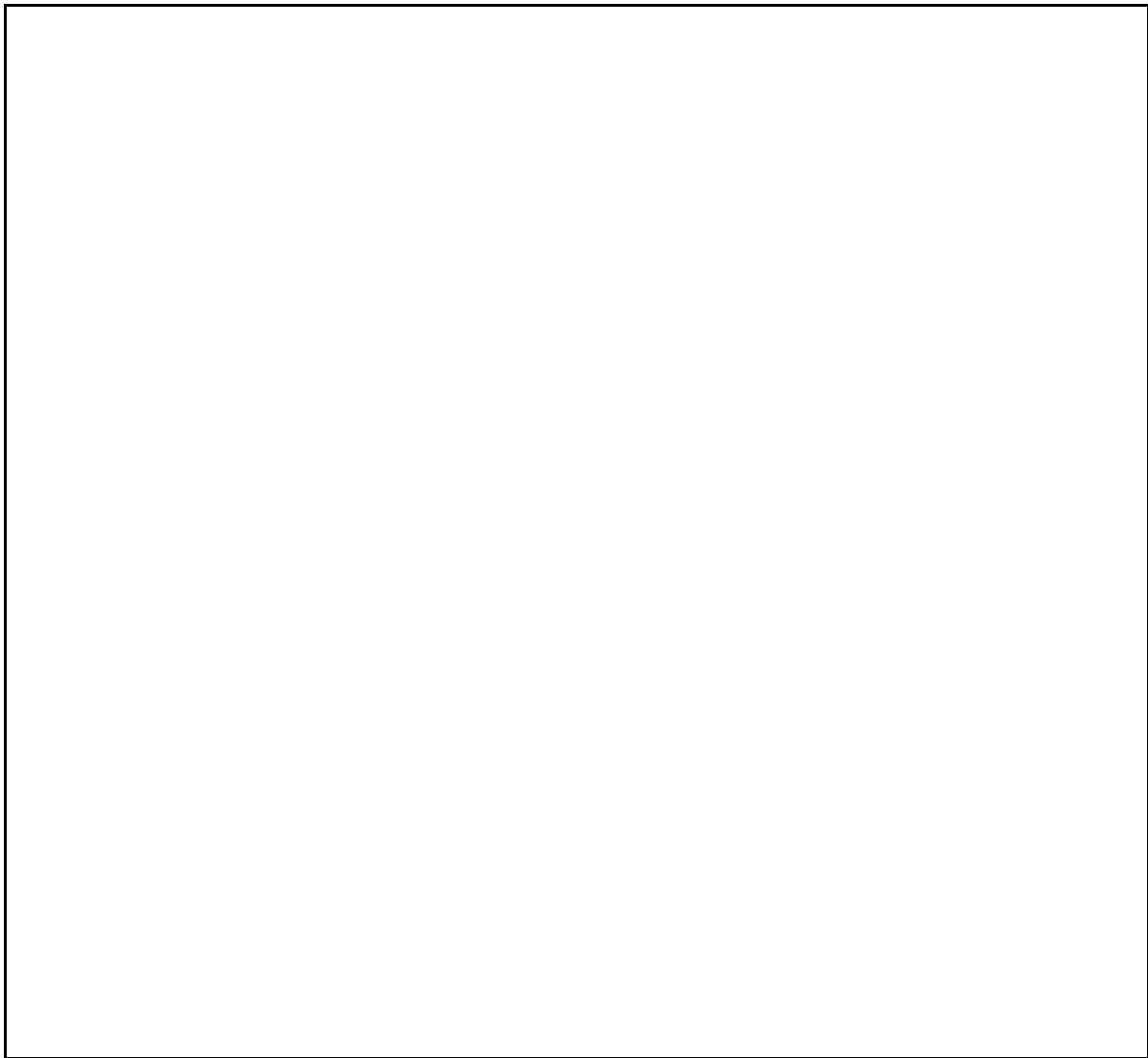
They want to buy a pizza between them.

The pizza costs £3.50

How much money will they have left?



Show your working here.



(Total 2 marks)

- Q22.** Simon is a salesman.  
He gets paid expenses of 40p for every mile that he drives during work.  
He also gets £12 expenses as a meal allowance for any day that he drives during work.  
The table gives information about the number of miles Simon drove on 5 days in one week.

Day	Number of miles
Monday	48
Tuesday	37

Wednesday	0
Thursday	78
Friday	21

(a) Work out Simon's total expenses.

£ .....

(4)

Sasha works for the same company.  
She gets paid expenses of 40p for each mile she drives during work.

Last year she worked for 48 weeks.

Her total **expenses** for driving for the year were £2116.80

- (b) Work out an estimate for the average number of miles Sasha drove during work each week last year.

.....

(3)  
(Total 7 marks)

**Q23.** Parul has £1.70

She wants to buy a drink and something to eat.

- (a) What are the different combinations she can buy?

<b>Ben's Burger Bar</b>			
<b>Burgers</b>			
Single burger			£0.85
Single burger with cheese			£0.95
Double burger			£1.55
Double burger with cheese			£1.70
	<b>Fries</b>		<b>Cola</b>
Regular	£0.65	Regular	£0.85
Large	£0.99	Large	£1.10
<b>Meal Deals</b>			
<b>Regular</b>			
Single burger with regular fries and regular cola			£2.09
<b>Large</b>			
Double burger with cheese large fries and large cola			£3.49

.....

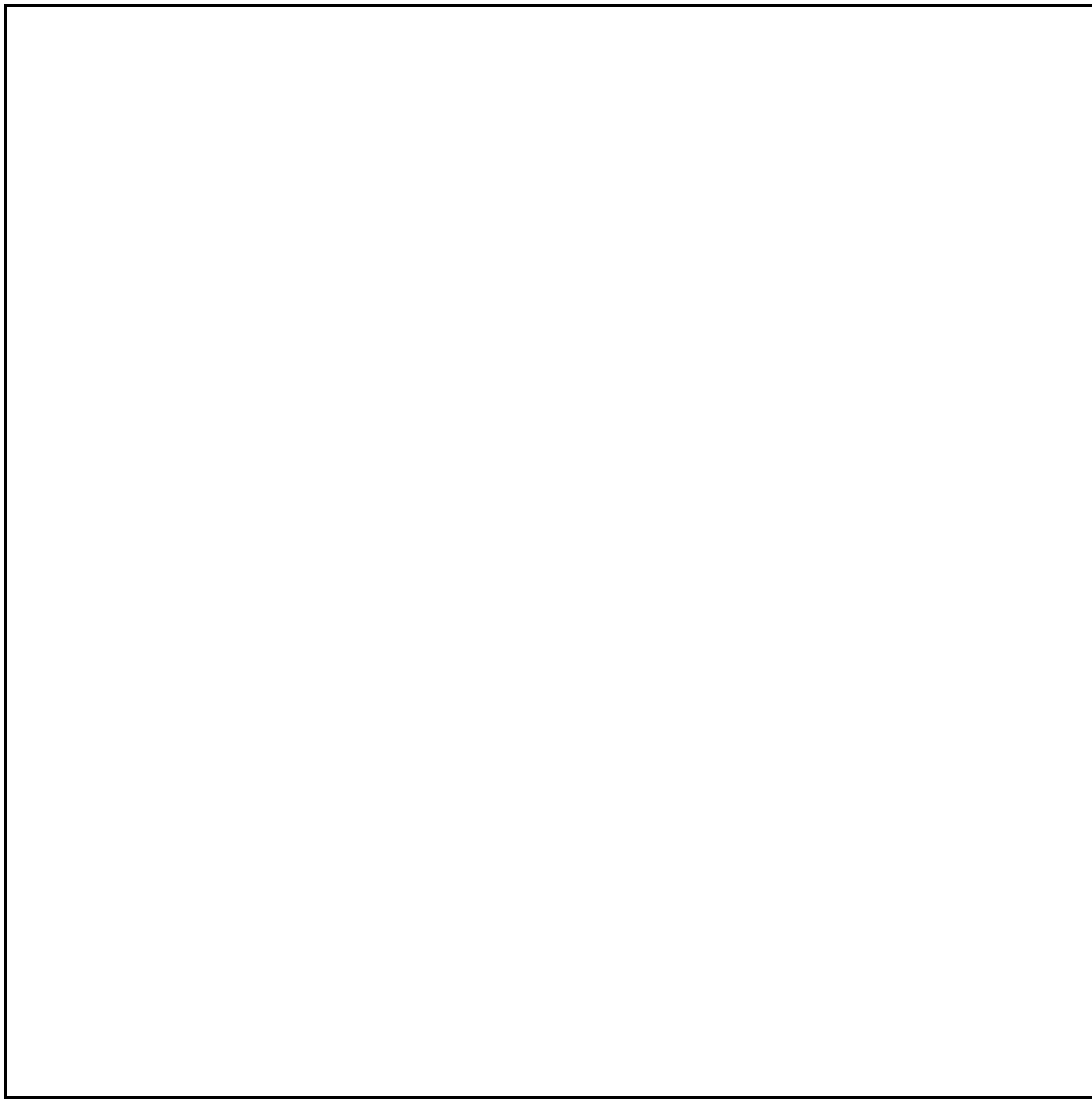
(2)

Ken buys

2 double burgers with cheese,  
1 large fries  
and 1 large cola.

He pays with a £10 note.

- (b) He gets the best price.  
What change should he get?



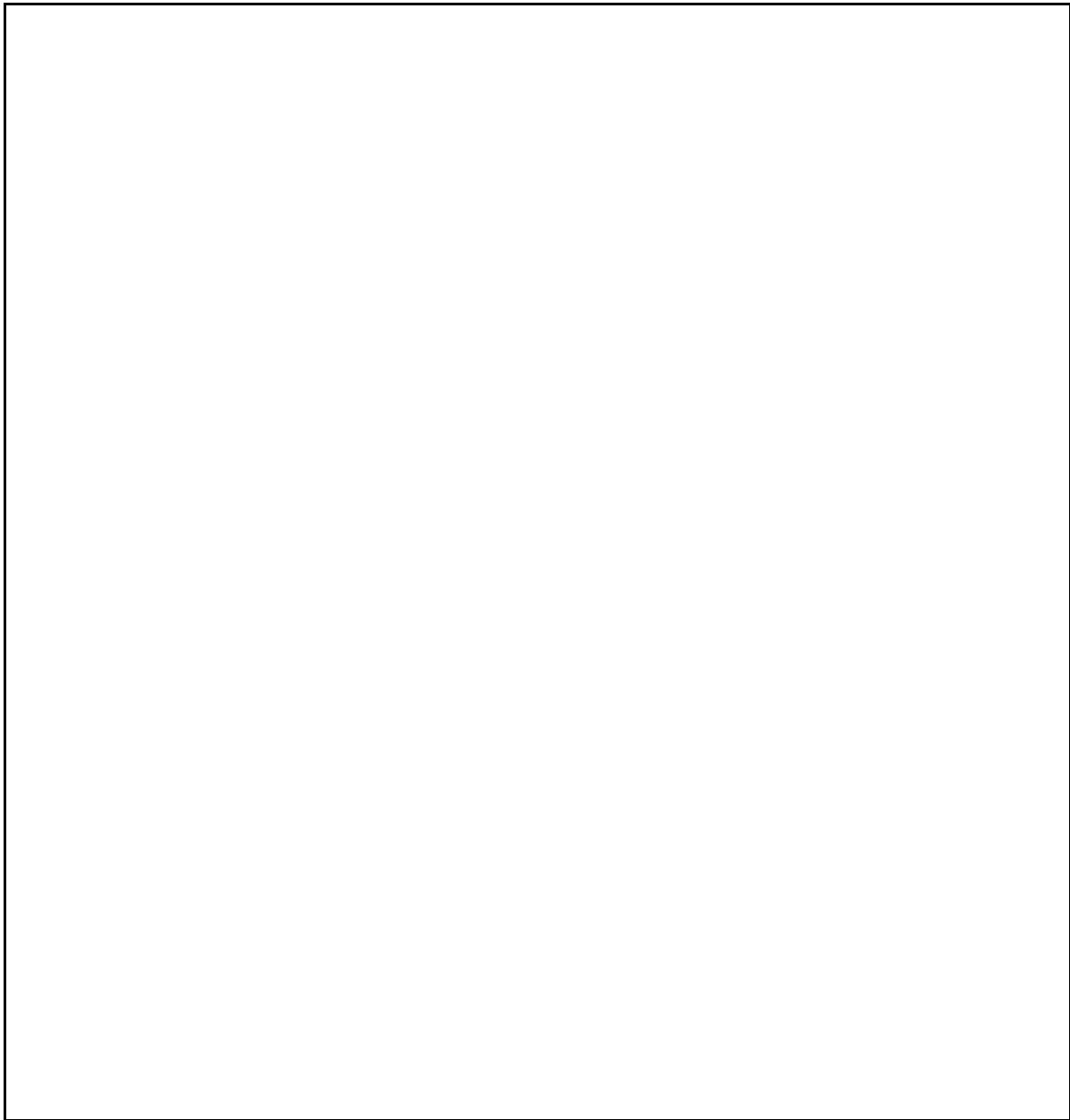
£ .....

(3)  
(Total 5 marks)

- Q24.** Chris owns a clothes shop.  
He bought 50 shirts at £12 for each shirt.  
He chose the selling price of each shirt so that he would make a profit of 30% on each shirt.  
He sold 20 shirts at this price.

Chris then reduced the selling price of each shirt by 15%.  
He then sold the remaining shirts at this reduced selling price.

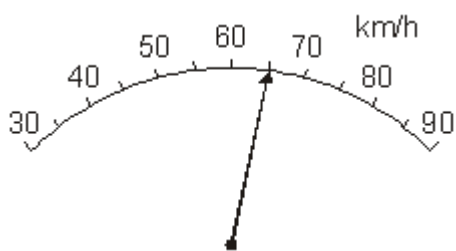
Has Chris made a profit or loss?  
You must explain your answer clearly.



**(Total 8 marks)**

**Q25.** (a) Write down the reading on this scale.

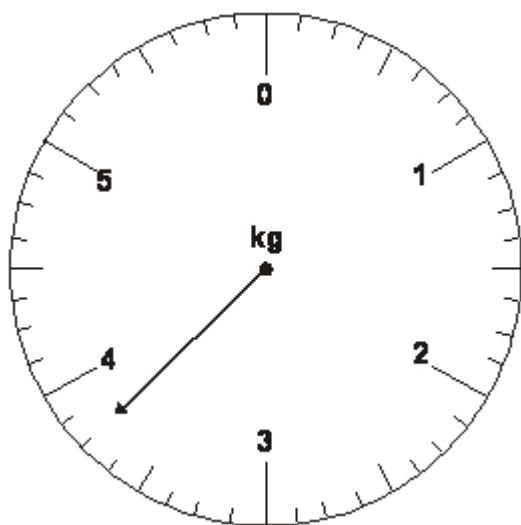




..... km/h

(1)

The scale shows the weight of Sam's dog.



Sam's baby brother weighs 5 kg.

(b) Work out the difference in weight between Sam's baby brother and Sam's dog.

..... kg

(2)

(Total 3 marks)

M1.

Working	Answer	Mark	Additional Guidance
$28.80 \div 30 = 0.96$	96p or £0.96	3	<b>M1</b> for $28.80 \div 30$ or valid partitioning method, allow one arithmetic error <b>A1</b> for sight of 0.96 or 96 <b>B1</b> ft for their cost of one litre correctly written as money
<b>Total for Question: 3 marks</b>			

M2.

Working	Answer	Mark	Additional Guidance
$1.99 + 1.99 = 3.98$ $5 - 3.98 =$	1.02	2	<b>M1</b> for $2 \times 1.99$ or for $5 - 2 - 2$ <b>A1</b> for 102(p) or for £1.02 SC <b>B1</b> for £1.2 or £1.2p
<b>Total for Question: 2 marks</b>			

M3.

	Answer	Mark	Additional Guidance
(a)	0.25	1	<b>B1</b> cao

(b)	5	1	B1 cao
<b>Total for Question: 2 marks</b>			

**M4.**

	Answer	Mark	Additional Guidance
(a)	0.9	1	B1 for 0.9
(b)	75	1	B1 for 75 cao
(c)		1	$\frac{23}{100}$ B1 for $\frac{23}{100}$ o.e.
(d)	10	1	B1 for 10 cao
<b>Total for Question: 4 marks</b>			

**M5.**

	Answer	Mark	Additional Guidance
(a)	25	1	B1 for 25 cao
(b)	0.2	1	B1 for 0.2 cao
(c)	$\frac{27}{100}$	1	$\frac{27}{100}$ B1 for $\frac{27}{100}$ cao
<b>Total for Question: 3 marks</b>			

**M6.**

	Answer	Mark	Additional Guidance
(a)	9	1	<b>B1</b> cao
(b)	0.6, 2.8, 4.71, 13.4	1	<b>B1</b> cao
(c)	0.7	1	<b>B1</b> cao
<b>Total for Question: 3 marks</b>			

**M7.**

	Working	Answer	Mark	Additional Guidance
<b>FE</b>	Days 3 <sup>rd</sup> Apr to 30 <sup>th</sup> Jun is $28 + 31 + 30 = 89$ days  Cost of days $= "89" \times 15.07p = \text{£}13.41$  Units used $10625 - 8963$ $= 1662$  Cost of units $= 1662 \times 11.85$ $= \text{£}196.95$  $196.95 + 13.41$	£210.36	6	<b>M1</b> for attempt to find the number of days  <b>M1</b> for standing charge = "89" $\times$ 15.07p  <b>M1</b> for attempt to find the number of units used  <b>M1</b> for attempt to find cost of units "1662" $\times$ 11.85p  <b>A1</b> for standing charge = "13.41" or unit cost = £196.95  <b>A1</b> for £210.36 cao
<b>Total for Question: 6 marks</b>				

M8.

	Working	Answer	Mark	Additional Guidance
<b>QWC</b> (i, ii, iii)	$10 \times \text{£}5.99 = \text{£}59.90$	£49.30 profit	5	<b>M1</b> for attempt to find original cost of water  <b>M1</b> for attempt to find cost of sale of first 80 bottles  <b>M1</b> for attempt to find number of remaining bottles $10 \times 12 - 80$ oe  <b>M1</b> for attempt to find cost of cost of sale of remaining bottles  <b>A1</b> cao <b>QWC: Decision must be stated with clear working attributed correctly</b>  <b>OR</b> <b>M1</b> for $5.99 \div 12 = \text{approx } 50\text{p}$  <b>M1</b> for attempt to find profit on sale of first 80 bottles  <b>M1</b> for attempt to find number of remaining bottles  <b>M1</b> for attempt to find profit on sale of remaining bottles  <b>A1</b> cao <b>QWC: Decision must be stated with clear working attributed correctly</b>
<b>FE</b>	$10 \times 120 - 80 = 40$			
	$80 \times \text{£}0.99 = \text{£}79.20$			
	$40 \times \text{£}0.75 = \text{£}30$			
	$\text{£}79.20 + \text{£}30 - \text{£}59.90$			
<b>OR</b>				
	$5.99 \div 12 = 50\text{p (approx)}$			
	$10 \times 12 - 80 = 40$			
	$80 \times ("99 - 50") = \text{£}39.20$			
	$40 \times ("75 - 50") = \text{£}10$			
				<b>Total for Question: 5 marks</b>

M9.

		Working	Answer	Mark	Additional Guidance
FE	(a)	<p>200 bags = <math>40 \times 5</math>, cost = <math>\pounds 0.85 \times 5 = \pounds 4.25</math></p> <p>or <math>80 \times 2 + 40 \times 1</math>, cost = <math>\pounds 1.65 \times 2 + \pounds 0.85</math> = <math>\pounds 3.30 + \pounds 0.85 = \pounds 4.15</math></p> <p>or <math>160 \times 1 + 40 \times 1</math>, cost = <math>\pounds 3.40 + \pounds 0.85 = \pounds 4.25</math></p> <p><b>OR</b></p> <p>Using the 80 bag packet is least expensive since:</p> <p><math>\pounds 1.65 &lt; \pounds 0.85 \times 2</math> (<math>\pounds 1.70</math>) and <math>\pounds 1.65 \times 2 = \pounds 3.30 &lt; \pounds 3.40</math></p> <p>Therefore 2 80 bag packets + 1 40 bag packet will be needed to get the least expensive total cost.</p>	80 × 2 + 40 × 1 is the least expensive	4	<p><b>B1</b> for at least 2 alternative ways of getting 200 bags</p> <p><b>M1</b> for a correct process to work out the cost of 1 way</p> <p><b>A1</b> for the 3 correct total costs</p> <p><b>C1</b> for justification that <math>80 \times 2 + 40 \times 1</math> is the least expensive, therefore giving Tommy the greatest change</p> <p><b>OR</b></p> <p><b>M1</b> for comparing the cost of 2 40 bag packets with 1 80 bag packet or 2 80 bag packets with 1 1600 bag packet</p> <p><b>A1</b> for correct arithmetic giving accurate costs</p> <p><b>C1</b> for justification that using 80 bag packets gives thy least expensive way</p> <p><b>B1</b> for <math>80 \text{ bags} \times 2 + 40 \text{ bag} \times 1</math></p>
	(b)	<p><math>57 + 48 \times 2 - 125 =</math> <math>153 - 125 = 28</math> pkts on shelf</p> <p><math>72 - 28 = 44</math> pkts on shelf at end of day</p> <p><b>OR</b></p> <p><math>57 + 48 + 48 = 105 + 48 = 153</math></p> <p><math>153 - 125 = 28</math> pkts on shelf</p> <p><math>72 - 28 = 44</math> pkts on shelf at end of day</p> <p><b>OR</b></p> <p>When there are <math>72 - 48 = 24</math></p>	Not room for the full carton	3	<p><b>M1</b> for <math>57 + 48 \times 2 - 125</math> oe</p> <p><b>M1</b> for <math>72 - "57 + 48 \times 2 - 125" = 44</math></p> <p><b>C1</b> for justification for opening another carton or not</p> <p><b>OR</b></p> <p><b>M1</b> for a correct process that includes the removing of 125 pkts</p> <p><b>M1</b> for calculation leading to the number of spaces remaining at the end of the day</p> <p><b>C1</b> for justification for opening another carton or not</p>

	<p>pkts on shelf, a carton can opened.</p> <p>After selling <math>57 - 24 = 33</math>, 1st carton of 48 is opened to fill the shelf to 72.</p> <p>After selling a further 48, 2nd carton of 48 added.</p> <p><math>33 + 48 = 81</math> pkts sold.</p> <p><math>125 - 81 = 44</math> pkts on shelf at end of day</p>				
<b>Total for Question: 7 marks</b>					

M10.

	Working	Answer	Mark	Additional Guidance
(a)		Cross at 1	1	<b>B1</b> for cross at 1 (allow $\pm 2$ mm tolerance)

(b)

1



(c)(i)

$$\frac{1}{4}$$

2

(ii)

35

(d)		$1 - s$	1	<b>B1</b> cao
				<b>Total for Question: 5 marks</b>

**M11.**

	Answer	Mark	Additional Guidance
(a)	9	1	<b>B1</b> cao
(b)	64	1	<b>B1</b> cao
(c)	$\frac{4}{5}$	2	<b>B2</b> for $\frac{4}{5}$ ( <b>B1</b> for 80/100 oe or 0.8)
(d)	£32	2	<b>M1</b> for $10/100 \times 320$ , or $320 \div 10$ <b>A1</b> cao NB: £320-£32=£288 or £320+£32=£352 can be awarded <b>M1</b> <b>A1</b> , but £288 or £352 without working award <b>B1</b>
(e)	0.35, $\frac{3}{8}$ $\frac{2}{5}$ , 45%	2	<b>B2</b> all correct, or for equivalents in order: 0.35, 0.375, 0.4, 0.45, or for a mixture of equivalents as long as the order is correct. ( <b>B1</b> one error of misplacing numbers, or correct conversion to decimals or %, or correct order but reversed). NB: accept 0.38 or 0.37 instead of 0.375 for <b>B1</b> , but not <b>B2</b>
			<b>Total for Question: 8 marks</b>

M12.

Working	Answer	Mark	Additional Guidance
$£1.70 \times 5$	8.50	1	<b>B1</b> for 8.50 or £8.50p, but NOT for 8.5 or 8.05
<b>Total for Question: 1 mark</b>			

M13.

	Working	Answer	Mark	Additional Guidance
(a)		0.92	1	<b>B1</b> for 0.92 cao
(b)		$\frac{3}{100}$	1	<b>B1</b> for $\frac{3}{100}$ cao 100
(c)	$\frac{5}{100} \times 400$	20	2	<b>M1</b> for $\frac{5}{100} \times 400$ oe <b>A1</b> for 20 cao
<b>Total for Question: 4 marks</b>				

M14.

Working	Answer	Mark	Additional Guidance
$\frac{60}{2} \times 5$	1.50	3	<b>M2</b> for $\frac{60}{2} \times 5$ oe or 150 seen

			$\frac{60}{2}$ <b>M1</b> for $\frac{60}{2}$ or 30 seen or $60 \times 5$ or 300 seen or $0.6 \times 5$ or 3(.00) seen <b>A1</b> for 1.5(0)(p) Accept 150p with £ crossed out
			<b>Total for Question: 3 marks</b>

M15.

	Answer	Mark	Additional Guidance
(a)	6, 17, 24, 168	1	<b>B1</b> for 6, 17, 24, 168
(b)	0.5, 1.8, 3.71, 12.4	1	<b>B1</b> for 0.5, 1.8, 3.71, 12.4
			<b>Total for Question: 2 marks</b>

M16.

Answer	Mark	Additional Guidance
11.36 22.99 18.00 91.82	4	<b>B1</b> cao <b>B1</b> cao <b>B1</b> cao (allow 18) <b>B1</b> for 91.82 or f.t. from adding at least 3 item totals (62.46 + "11.36" + " 18.00")
		<b>Total for Question: 4 marks</b>

M17.

	Working	Answer	Mark	Additional Guidance
(a)	$3 \times 60$	1.80	2	<b>M1</b> for $3 \times 60$ or $60 + 60 + 60$ or $3 \times 45$ or 180 seen <b>A1</b> (accept 1.8) SC <b>B1</b> for £1.35
(b)	$2.70 + 0.45 + 0.60$ $= 3.75$ $5 - 3.75 = 1.25$	1.25	3	<b>M1</b> for $2.70 + 0.45 + 0.60$ or 3.75 seen (note: working could be in pence) <b>M1</b> (dep) for $5 - "3.75"$ <b>A1</b> cao SC <b>B2</b> for 125
(c)	$60 \div 3 = 20$ $20 \times 2 = 40$	40	2	<b>M1</b> for $60 \div 3$ or $60 \times 2$ or sight of 20 or 120 <b>A1</b> cao
<b>Total for Question: 7 marks</b>				

M18.

	Working	Answer	Mark	Additional Guidance
(a)	$\frac{9}{12}$	$\frac{3}{4}$	2	<b>B2</b> for $\frac{3}{4}$ cao ( <b>B1</b> for $\frac{9}{12}$ seen)
(b)		shading	1	<b>B1</b> for 6 squares (only) shaded
(c)		0.3	1	<b>B1</b> for 0.3 oe
(d)		$\frac{39}{100}$	1	<b>B1</b> for $\frac{39}{100}$ oe as a fraction

<b>Total for Question: 5 marks</b>
------------------------------------

**M19.**

	Working	Answer	Mark	Additional Guidance
(a)	$5.85 + 4.90$	10.75	1	<b>B1</b> for 10.75 cao
(b)	$60.55 \div 8.65$	7	2	<b>M1</b> for $60.55 \div 8.65$ or $8.65 \times 7 = 60.55$ or for at least 4 repeated additions or subtractions of 8.65 <b>A1</b> for 7 cao
(c)	$8.65 + (4.90 + 4.90)$ $20 - 18.45$	1.55	3	<b>M1</b> for $8.65 + (4.90 + 4.90)$ <b>M1</b> (dep) for $20 - '18.45'$ <b>A1</b> for 1.55 cao SC: award <b>B1</b> for sight of 18.45 or 6.45 or 10.20 award <b>B2</b> for 155
<b>Total for Question: 6 marks</b>				

**M20.**

	Working	Answer	Mark	Additional Guidance
<b>FE</b>	$3 \times 2.5 = 7.50$ $4 \times 1.75 = 7$ $75.50 + 7.50 + 7 = 90$  $9 + 4.5 + 2.25 = 15.75$	105.75	6	<b>B1</b> 3 and 7.50  <b>B1</b> 4 and 7  <b>B1</b> 90 ft  <b>M1</b> $9 + 4.5 + 2.25$ seen

				A1 15.75 A1 cao
<b>Total for Question: 6 marks</b>				

M21.

Working	Answer	Mark	Additional Guidance
$1.60 + 2.05 = 3.65$	15p	2	<b>B1</b> £3.65 oe <b>B1</b> 15p
<b>Total for Question: 2 marks</b>			

M22.

		Working	Answer	Mark	Additional Guidance
<b>FE</b>	(a)	$48 + 37 + 78 + 21 = 184$ $184 \times 40 = 7360$ $4 \times 12 = 48$ $73.60 + 48$	£121.60	4	<b>M1</b> find the total miles <b>M1</b> total miles $\times 40$ or $\times 0.4(0)$ <b>M1</b> mileage expenses $+ 4 \times 12$ or $+ 5 \times 12$ <b>A1</b> cao
	(b)	$2000 \div 50 = 40$ $4000 \div 40 = 100$	100	3	<b>M1</b> for sight of 2000 , or 50, or 20000 <b>M1</b> dep for an attempt to find cost per week or mileage per year

	<b>OR</b> $2000 \div 0.4 = 50000$ $50000 - 50 = 100$ <b>OR</b> $0.4 \times 50 = 20$ $2000 \div 20 = 100$		<b>A1</b> 100 <b>OR</b> <b>M1</b> sight of 2000, or 50 <b>M1</b> dep $0.4 \times 50$ and $2000 \div '20'$ <b>A1</b> 100
<b>Total for Question: 7 marks</b>			

M23.

		Working	Answer	Mark	Additional Guidance
<b>FE</b>	(a)		2 correct combinations	2	<b>B1</b> Single burger and regular cola oe <b>B1</b> Regular fries and regular cola oe -1 for each extra incorrect
	(b)	Best is Cost $3.49 + 1.70 = 5.19$ Change = $10.00 - 5.19$	£4.81	3	<b>M1</b> 2 correct individual costs found <b>M1</b> sum and subtract from £10 <b>A1</b> cao SC B2 5.24 (B1 $2 \times 1.70 + 0.99 + 0.85$ = (5.24))
<b>Total for Question: 5 marks</b>					



M24.

	Working	Answer	Mark	Additional Guidance
<b>QWC</b> i, ii, iii	50 shirts at £12 each = £600  Selling Price for profit of 30% = $£12 \times 1.3 = £15.60$ 20 shirts at £15.60 = £312  Reduced selling price = $£15.60 \times 0.85 = £13.26$ 30 shirts at £13.26 = £397.80  $£397.80 + £312 > £600$	Yes, together with appropriately set out working which supports answer	8	<b>B1</b> for price of 50 shirts <b>M1</b> for $£12 \times 1.3$ <b>A1</b> for £15.60 <b>A1</b> for 20 shirts = £312 <b>M1</b> for $£15.60 \times 0.85$ <b>A1</b> for £13.26 <b>A1</b> for 30 shirts = £397.80 <b>C1</b> Yes stated together with a statement which supports the correct answer  <b>QWC: With clear working attributed correctly</b>
				<b>Total for Question: 8 marks</b>

M25.

	Working	Answer	Mark	Additional Guidance
(a)		65	1	<b>B1</b> cao
(b)	$5 - 3.8$	1.2	2	<b>M1</b> $5 - 3.8$ <b>A1</b> cao
				<b>Total for Question: 3 marks</b>



**E1.** Many candidates made a good attempt at this question, and arrived at the digits 96 from calculation. There was then some confusion with money notation, with answers of £96 and 0.96p showing some misunderstanding.

**E2.** Almost all candidates obtained full marks in this question. Very few candidates obtained no marks.

**E3.** Fractions often cause a lot of problems on a foundation paper but 50% of candidates were able to write  $\frac{1}{4}$  as 0.25 and there was even more success with percentages where 71% of candidates were able to write 10% of £50 as £5.

**E4.** Conversions involving fractions, decimals and percentages were not as well handled as would be expected for the opening question with around two-thirds of the candidates having success on each part except for part (c) which only had a 57% success rate.

Practice might have eliminated some misunderstandings of the type ' $\frac{9}{10} = 9.10$ ', ' $\frac{3}{4} = 34\%$ ' and ' $23\% = \frac{2}{3}$ '.

- E5.** The first part of the first question on the paper was answered well with a success rate of over 80%. "26" was the most frequently seen incorrect response. Parts (b) and (c) provided more of a challenge. In part (b) only about one quarter of candidates could give a correct answer. The incorrect answer "0.15" was more commonly seen. In part (c) the fraction " $\frac{2}{7}$ " was seen almost as often as the correct answer " $\frac{27}{100}$ ". Here, just over a half of candidates were awarded the mark available.

##

Although most gave the correct answer, many were confused with the ten and multiplication was not uncommon. In part (b) most gave the correct answer, with the most common error being the 4.71 and 13.4 reversed. In part (c) both 0.7 and 0.70 were acceptable as answers. When 7.1, 7, 10 or other fractions were given as answers it was clear the candidate did not understand place value.

- E11.** The success rate in parts (a) & (b) in this question was related to that of question 2(ii), about half the candidates gaining the mark, with many lacking an understanding of square numbers or indices. In part (c) most were able to express the fraction as 80/100, but of these half were then unable to cancel the fraction into its simplest form.

Candidates used a variety of methods in part (d), with many realising that a division by 10, or "10p in the £" would lead to the correct answer.

Candidates found part (e) far more challenging. The most successful method appeared to be conversion to decimals.

- E12.** The purpose of this question was to assess the candidate's ability to interpret a calculator answer (8.5) in the context of money notation. Most earned the mark, with 8.5 and 8.05 being given as the most common incorrect answers.

- E13.** Part (a) was answered with the most success with two thirds of candidates able to write 92% as 0.92. The most common incorrect answer was 9.2. It was disappointing that in part (b) fewer than half of the candidates could write 3% as  $\frac{3}{100}$ . The most common incorrect answers were  $\frac{1}{3}$  and  $\frac{3}{10}$ . Part (c) was answered quite well and successful candidates often used the standard non-calculator method of finding 10% first. Some worked out  $50\% = 200$  and  $25\% = 100$  but then got stuck. Where the traditional method of  $\frac{5}{100} \times 400$  was seen candidates usually struggled to proceed any further with the calculation. A common incorrect method was for 400 to be divided by 5. Unfortunately many candidates showed no method at all.
- E14.** Many candidates gave the correct answer, often with little or no evidence of working out. The most common error was to use 60p as the price of one pen, leading to an answer of £3. Some candidates neglected to change the units and gave the answer as £150.
- E15.** Very few candidates failed to answer part (a) correctly. It was not surprising that more mistakes were made in ordering the decimals in part (b). The two most common errors were ignoring the decimal point (so that 3.71 appeared at the end of the list) and ordering the numbers from largest to smallest.
- E16.** This was generally well done with around two thirds of the candidates scoring all 4 marks, although all the working around the edges of the table did suggest that many candidates did not have access to a calculator. A common incorrect response for the cost of one brake pedal was £22.49. Quite a few candidates were confused by the labour charge, either leaving it out altogether or not adding it into their total. Fortunately, the final

total was a follow through mark so most candidates scored here.

**E17.** The first part of the question was successfully answered by almost 90% of candidates. Common errors seen included candidates working out the total cost of 3 rulers rather than 3 pens. These candidates could be given partial credit as they had misread the price list. Some candidates wrote the answer £180 and had clearly not considered the answer in the context of the question or surely they would have realised that this answer was unreasonable. Other candidates worked out the total cost of buying one of each item. In the second part of the question most candidates found the cost of the articles bought (£3.75) and usually realised the need to subtract this from £5. A significant proportion of candidates were unable to carry out this subtraction accurately. £2.25 and £1.35 were common incorrect answers. In part (c) there was again some evidence of candidates using the price of a ruler rather than a pen. A number of candidates found  $\frac{1}{3}$  of the price of a pen then went no further. This part of the question was completely correct in just over half of the responses seen.

**E18.** Most candidates gave  $\frac{9}{12}$  as their initial response, but not all cancelled their fractions correctly. Part (b) was also well answered. Only 50% of candidates were able to give this common fraction as a decimal, with many giving incorrect answers such as 3.0, 0.03, or failing to attempt the question. Part (d) was answered far better.

**E19. Specification A**

Most candidates gained full marks on this question. Where they did not it was usually due to misunderstanding or misreading of the question or simple mathematical errors. In (b) it was not uncommon to see the answers embedded in working, or shown as seven £8.65s added up in working without the answers “7” on the answer line.

Examples of errors in (c) include calculations for 1 adult and 1 child, or incorrect/missing

subtraction of £18.45 from £20 in part (c).

### Specification B

Adding £4.90 and £5.85 together by first selecting the information from the table gave little cause for concern, especially on this calculator paper with over 90% getting this correct. The most common error was to add together all three amounts with some going wrong by adding together the incorrect two amounts.

Some struggled to formulate a method in part (b) to determine how many adult tickets were bought. On a calculator paper evaluating  $60.55 \div 8.65$  should have been a relatively easy task. In part (c) writing down the method is good practice, as this allows for the award of method marks, although, in some instances, it was not that clear as to how the answer had been achieved. Many did not write £20 – their total and so often could not be awarded the second method mark when their answer was incorrect. Candidates need to be aware that even though we may suspect the method is correct, we cannot guess what they have done. Eg seeing £18.45 and then having an answer of £2.55 would not score the second method mark even though we suspect the candidate has done £20 – £18.45 It was pleasing to note that over  $\frac{3}{4}$  of the candidates scored all 5 marks in the last two parts.