

# Numerical Test 2

## Solutions Booklet

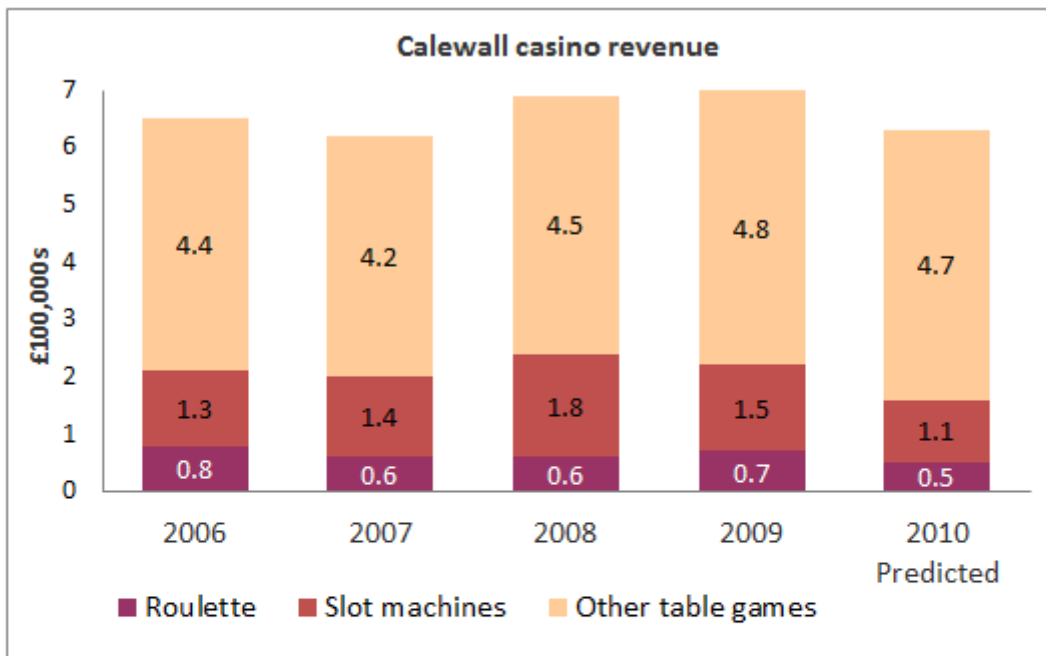
### Instructions

This numerical reasoning test comprises **30 questions**, and you will have **30 minutes** in which to correctly answer as many as you can. Calculators are permitted for this test, and it is recommended you have some rough paper to work on.

You will have to work quickly and accurately to perform well in this test. If you don't know the answer to a question, leave it and come back to it if you have time. Each question will have five possible answers, one of which is correct. You may click Back and Next during the test to review or skip questions.

You can submit your test at any time. If the time limit is up before you click submit the test will automatically be submitted with the answers you have selected. It is recommended to keep working until the time limit is up.

Try to find a time and place where you will not be interrupted during the test. **The test will begin on the next page.**



Calewall casino	Year	Annual attendances (100,000s)
	2006	14.6
	2007	15.2
	2008	16.3
	2009	16.8
	2010 Predicted	16.5

**\*All data is non-cumulative**

**Q1** How much did the combined revenue from Slot machines and Roulette differ from that of Other table games between 2006-2009 inclusive (in £millions)?

- (A) 0.9
- (B) 9.0
- (C) 9.2
- (D) 0.92
- (E) None of these

**Step 1** – Calculate the totals for Slot machines, Roulette, Other table games

Slot machines =  $1.3 + 1.4 + 1.8 + 1.5 = 6$

Roulette =  $0.8 + 0.6 + 0.6 + 0.7 = 2.7$

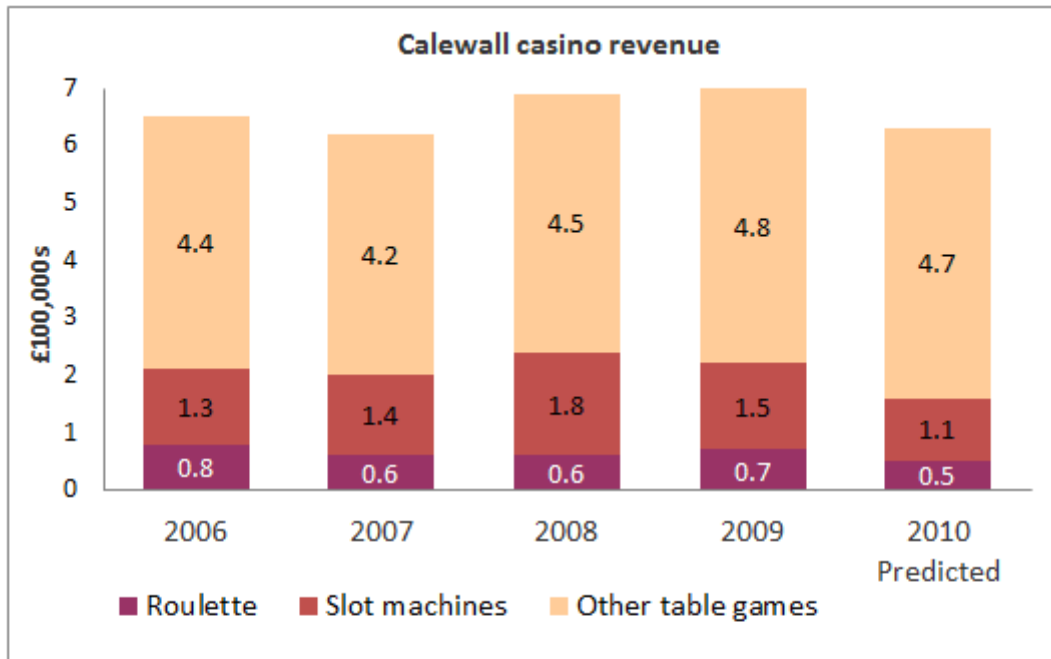
Other table games =  $4.4 + 4.2 + 4.5 + 4.8 = 17.9$

**Step 2** – Calculate the difference

$17.9 - 6 - 2.7 = 9.2$

**Step 3** – Put into £millions = 0.92

Thus the correct answer is (D) 0.92



Calewall casino	Year	Annual attendances (100,000s)
	2006	14.6
	2007	15.2
	2008	16.3
	2009	16.8
	2010 Predicted	16.5

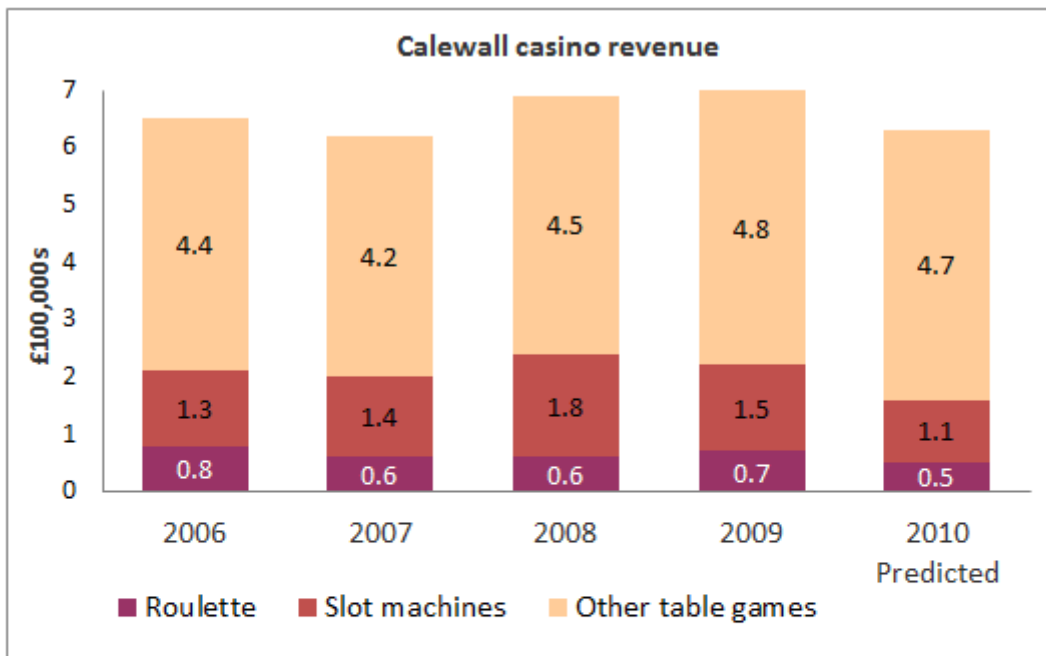
**\*All data is non-cumulative**

**Q2** What was the average amount gambled on Slot machines in 2007 by each individual who attended Calewall casino?

- (A) £90.00
- (B) £9.00
- (C) £0.90
- (D) £900.00
- (E) £0.09

**Step 1** - Amount gambled/No of people = 140,000 / 1,520,000 = £0.09

Thus the correct answer is (E) £0.09



Calewall casino	Year	Annual attendances (100,000s)
	2006	14.6
	2007	15.2
	2008	16.3
	2009	16.8
	2010 Predicted	16.5

**\*All data is non-cumulative**

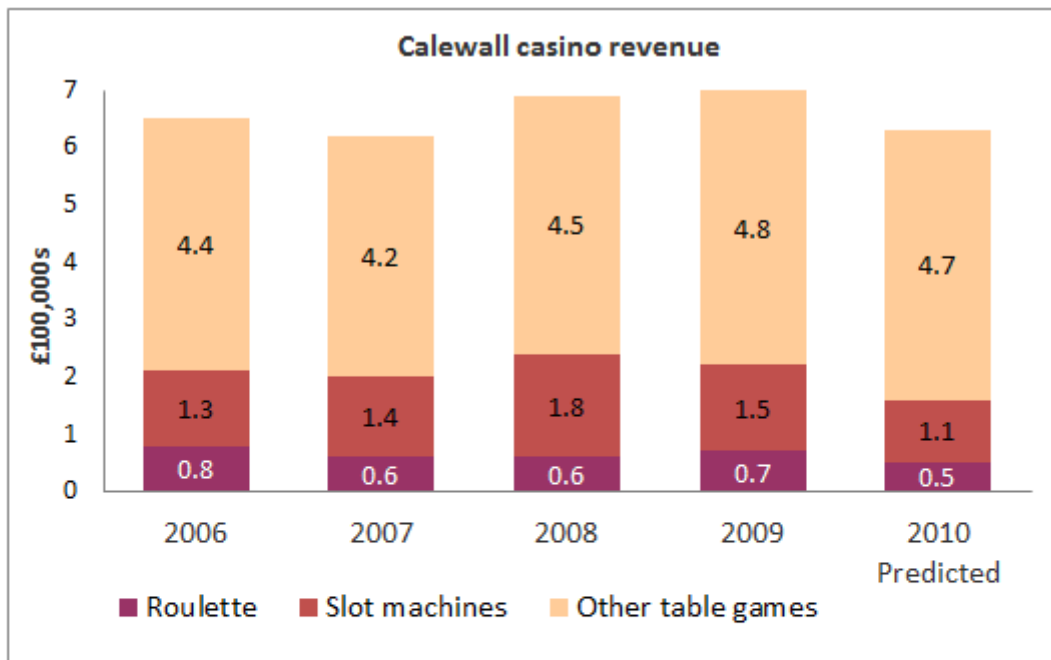
**Q3** There is a £15 entrance fee for each person gambling at Calewall casino. In which year, or years, was the entrance fee revenue less than £23 million?

- (A) 2006, 2007
- (B) 2007, 2008
- (C) 2007
- (D) 2006
- (E) None of these

**Step 1** - Calculate the entrance fee revenue for each year, as follows:

	Attendances	Entrance fee revenue
2006	1,460,000	$\times 15 = \text{£}21,900,000$
2007	1,520,000	$\times 15 = \text{£}22,800,000$
2008	1,630,000	$\times 15 = \text{£}24,450,000$
2009	1,680,000	$\times 15 = \text{£}25,200,000$

Thus the correct answer is (A) 2006, 2007



	Year	Annual attendances (100,000s)
Calewall casino	2006	14.6
	2007	15.2
	2008	16.3
	2009	16.8
	2010 Predicted	16.5

**\*All data is non-cumulative**

**Q4** What will be the average annual change in attendance at Calewall casino across the years 2006-2010 if the 2010 prediction proves to be accurate?

- (A) 47,500 decrease
- (B) 53,500 decrease
- (C) 52,500 increase
- (D) 47,500 increase
- (E) 53,500 increase

**Step 1** – Calculate the yearly change in attendance

2007 = 0.6 increase

2008 = 1.1 increase

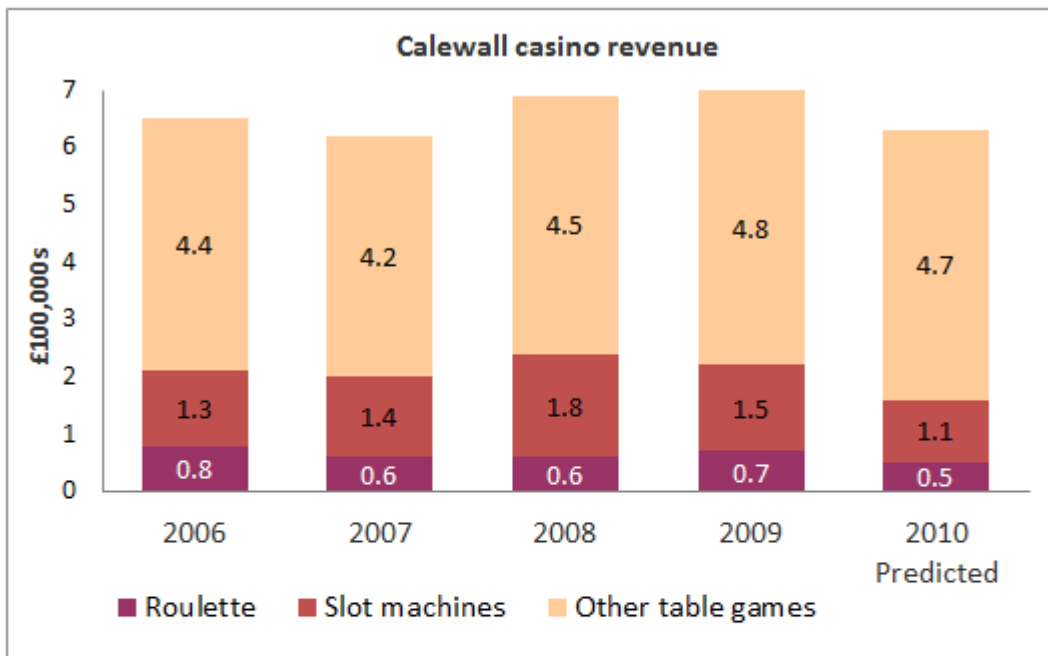
2009 = 0.5 increase

2010 prediction = 0.3 decrease

**Step 2** - Calculate the average yearly change in attendance

$(0.6 + 1.1 + 0.5 - 0.3) / 4 = 0.475$  (100,000s) = 47,500

Thus the correct answer is (D) 47,500 increase



Calewall casino	Year	Annual attendances (100,000s)
	2006	14.6
	2007	15.2
	2008	16.3
	2009	16.8
	2010 Predicted	16.5

**\*All data is non-cumulative**

**Q5** Calewall casino is subject to a takeover bid of 7 times its 2010 projected casino revenues. The Board responds that it can deliver 10% added value through cost-cuttings to this purchase price. What valuation is the Board putting on Calewall casino (in £ millions)?

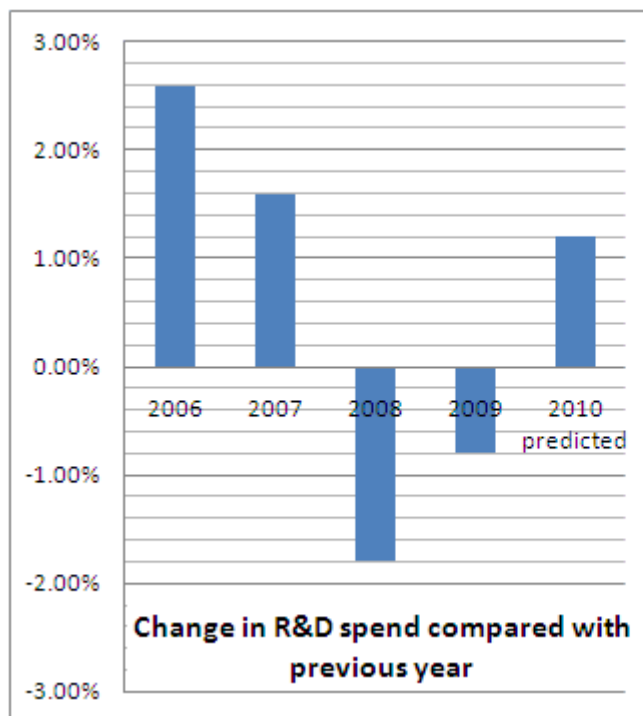
- (A) £48.51 million
- (B) £44.1 million
- (C) £4.85 million
- (D) £4.41 million
- (E) £6.3 million

**Step 1** - 2010 projected casino revenues =  $4.7 + 1.1 + 0.5 = 6.3$

$6.3 \times 7 = 44.1$

$44.1 \times 110\% = 48.51$  (£100,000s)

Thus the correct answer is (C) £4.85 million



Teala Media; Total R&D projects for 2009	R&D Spend (£1000s)
Leadership development programme	425.9
Process improvement systems	672.8
Partnership with A.S.P. Systems	215.5
New product development	1,056.0
Spry Inc. joint venture	113.2

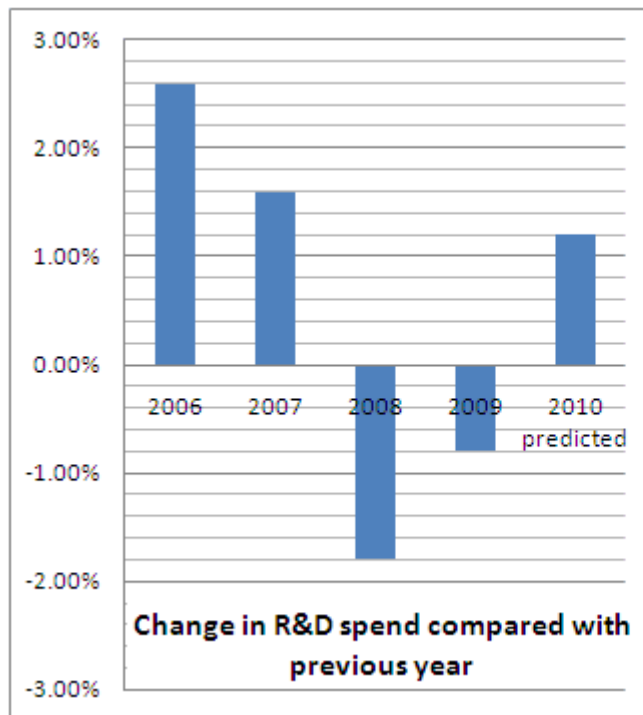
**Q6** If the 2010 prediction proves to be accurate, what is the average annual percentage change in Teala Media's R&D spend across the 5 years shown?

- (A) 0.53
- (B) 0.54
- (C) 0.55
- (D) 0.56
- (E) 0.57

**Step 1** - Calculate the average

$$(2.6 + 1.6 - 1.8 - 0.8 + 1.2) / 5 = 0.56$$

Thus the correct answer is (D) 0.56



Teala Media; Total R&D projects for 2009	R&D Spend (£1000s)
Leadership development programme	425.9
Process improvement systems	672.8
Partnership with A.S.P. Systems	215.5
New product development	1,056.0
Spry Inc. joint venture	113.2

**Q7** What is the R&D spend projected to be for 2010?

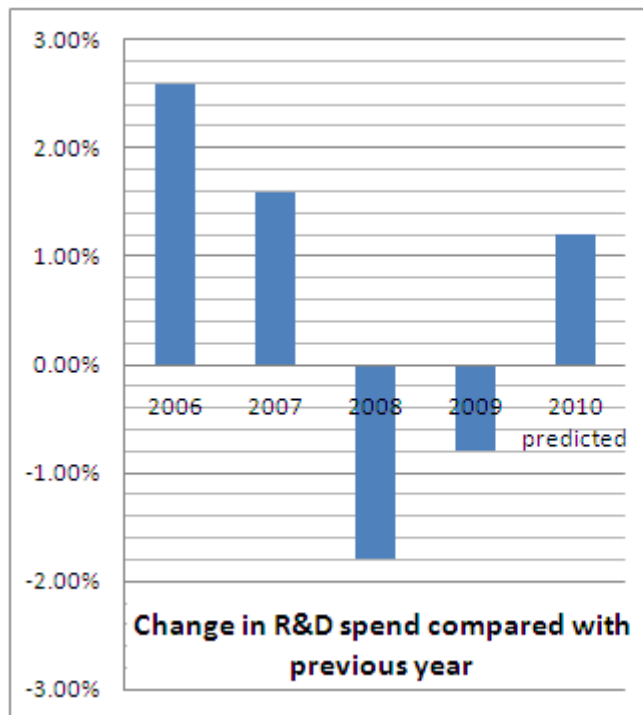
- (A) £2.5 million
- (B) £2.75 million
- (C) £3.0 million
- (D) £3.25 million
- (E) £3.5 million

**Step 1** – Calculate the total R&D spends per project for 2009 (given in the table):  
Addition of 5 projects = 2,483.4 (£1000's)

**Step 2** – From the graph we see that the 2010 predicted change in R&D spend is +1.2% in the 2009 value. So add the 1.2%:  
 $2,483,400 \times 101.2\% = £2.51 \text{ million}$

Thus the correct answer is (A) £2.5 million





Teala Media; Total R&D projects for 2009	R&D Spend (£1000s)
Leadership development programme	425.9
Process improvement systems	672.8
Partnership with A.S.P. Systems	215.5
New product development	1,056.0
Spry Inc. joint venture	113.2

**Q8** What was the R&D spend for 2008 (to the nearest £1,000)?

- (A) £2,235,000
- (B) £2,613,000
- (C) £2,503,000
- (D) £2,483,000
- (E) £2,305,000

**Step 1** – Total R&D spend for 2009 is obtained from the table.

Addition of 5 projects = 2,483.4 (£1000's) = £2,483,400. You may still have this number from your previous notes.

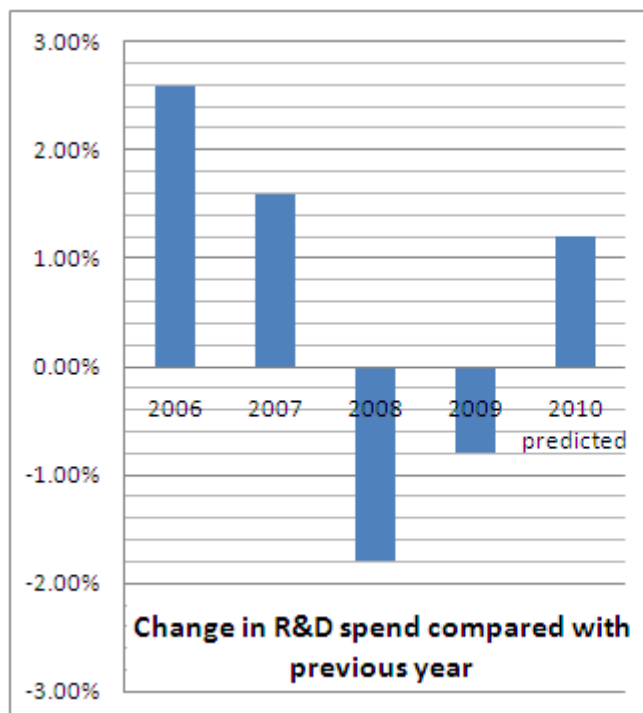
**Note 1:** Notice that the graph gives "change in R&D spend compared with previous year". So in 2009 the change compared to 2008 was -0.8% from the graph. It is NOT the difference between -1.8% and -0.8% (i.e. +1.0%).

**Note 2:** To get the correct percentage calculation think about a 0.8% drop from the 2008 figure to the 2009 figure. We would say [2008 figure]  $\times$  0.992 = [2009 figure]. We have calculated the 2009 figure to be £2,483,400 so by rearranging we can find 2008.

**Step 2** – Allow for the 0.8% decrease in R&D spend for 2009 compared with 2008  
 $\text{£2,483,400} \div 0.992 = \text{£2,503,427}$

**Step 3** – To the nearest £1000

Thus the correct answer is (C) £2,503,000



Teala Media; Total R&D projects for 2009	R&D Spend (£1000s)
Leadership development programme	425.9
Process improvement systems	672.8
Partnership with A.S.P. Systems	215.5
New product development	1,056.0
Spry Inc. joint venture	113.2

**Q9** R&D overheads were 12% of R&D spend in 2009. If R&D overheads are projected to rise by 1.1% between 2009 and 2010, what is the 2010 predicted R&D sum left after these overheads are taken in to account?

- (A) £1.02million
- (B) £1.22million
- (C) £2.11million
- (D) £2.21million
- (E) £2.48million

**Step 1** - Total R&D spend in 2009 was £2,483.4 (thousands). So £2,483,400.

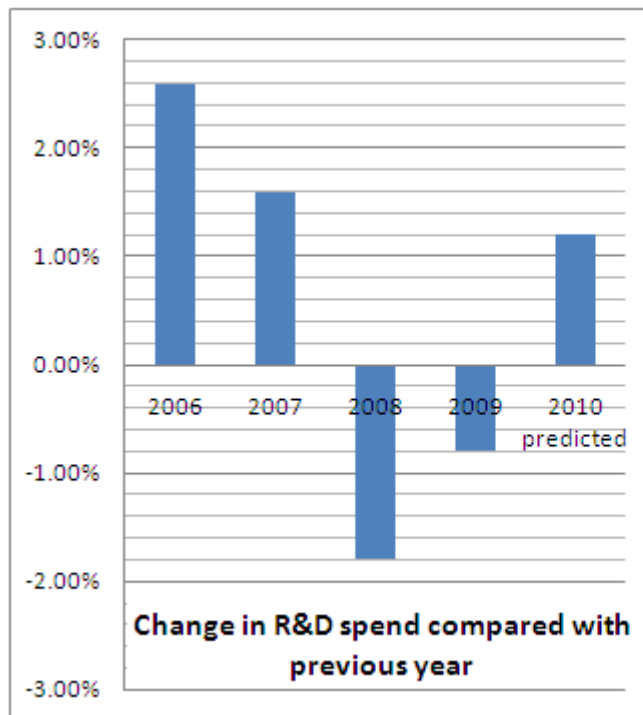
**Step 2** - R&D overheads we are told are 12% of spend so  $12\% \times £2,483,400 = £298,008$ .

**Step 3** - The graph tells us that the R&D spend in 2010 is projected to increase by 1.2%. This will be  $£2,483,400 \times 1.012 = £2,513,200.8$ .

And we are told in the question that the R&D overheads are expected to increase by 1.1%. This will be  $£298,008 \times 1.011 = £301,286.1$ .

**Step 4** - So the available R&D money left after overheads is  $(2,513,200.8 - 301,286.1) = £2,211,914.7$ .

Thus the correct answer is (D) £2.21 million



Teala Media; Total R&D projects for 2009	R&D Spend (£1000s)
Leadership development programme	425.9
Process improvement systems	672.8
Partnership with A.S.P. Systems	215.5
New product development	1,056.0
Spry Inc. joint venture	113.2

**Q10** If delays at the end of 2009 resulted in a 2.5% increase in the cost of each of the two most expensive projects, what is the total R&D spend for 2009 (to the nearest £1,000)?

- (A) £2,482,000
- (B) £2,527,000
- (C) £2,528,000
- (D) £2,556,000
- (E) None of These

**Step 1** – Add the additional 2.5% R&D charge for the two most expensive R&D projects for 2009

2010 additional New product development spend =  $1056 \times 0.025 = 26.4$

2010 additional Process improvement systems spend =  $672.8 \times 0.025 = 16.82$

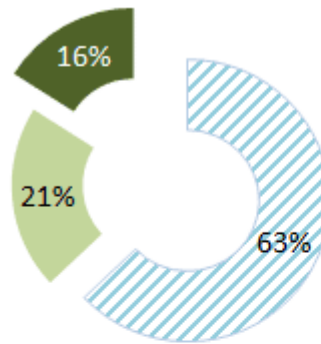
**Step 2** – Calculate Total R&D spend for 2009

Total R&D spend =  $425.9 + 672.8 + 215.5 + 1,056 + 113.2 + 26.4 + 16.82 = £2,526,620$

Thus the correct answer is (B) £2,527,000

**Leutts Employee  
shareholding (30 April 2009)**

- ▨ Past employees
- Current employees
- Directors



List of All Directors	Number of Shares		
	At 1st April 2009	At 30 April 2009	At 31 <sup>st</sup> May 2009
Geoffrey Yates	1,100	1,050	910
Tobey Gilham	1,050	950	820
Susan Preddy	950	820	250
Samantha Hoxton	990	1,100	550
Trudy Stupples	1,200	960	2,400

**Q11** What is the number of shares not held by Directors of Leutts (as of 30 April 2009)?

- (A) 25,620
- (B) 6,850
- (C) 43,500
- (D) 4,880
- (E) Cannot tell from data

*The data you need is in both the pie-chart and the table.*

**Step 1** - The pie-chart shows that 16% of Directors hold shares, so  $100 - 16 = 84\%$  do not hold shares

**Step 2** - Calculate the total number of director shares at 30 April 2009

Director	At 30 April 2009
Geoffrey Yates	1,050
Tobey Gilham	950
Susan Preddy	820
Samantha Hoxton	1,100
Trudy Stupples	960
<b>Total =</b>	<b>4,880</b>

**Step 3 - Calculate 84%**

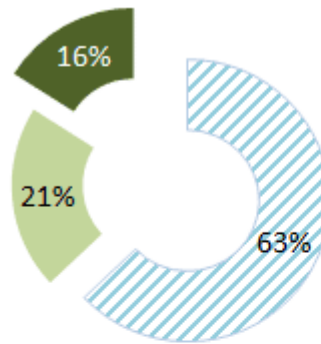
$$16\% = 4,880$$

$$84\% = 4,880 \times 84 / 16 = 25,620$$

*Thus the correct answer is (A) 25,620.*

**Leutts Employee  
shareholding (30 April 2009)**

- ▨ Past employees
- Current employees
- Directors



List of All Directors	Number of Shares		
	At 1st April 2009	At 30 April 2009	At 31 <sup>st</sup> May 2009
Geoffrey Yates	1,100	1,050	910
Tobey Gilham	1,050	950	820
Susan Preddy	950	820	250
Samantha Hoxton	990	1,100	550
Trudy Stupples	1,200	960	2,400

**Q12** Which Director has bought or sold the largest number of shares across the 2-month period shown?

- (A) Geoffrey Yates
- (B) Trudy Stupples
- (C) Samantha Hoxton
- (D) Susan Preddy
- (E) Tobey Gilham

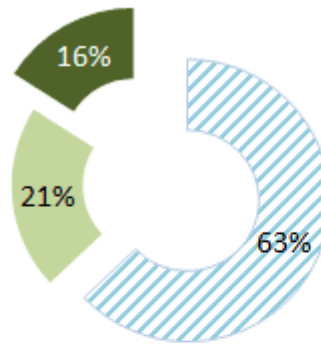
**Step 1** - The largest number of shares can be found by calculating the differences in shareholdings between the periods 1<sup>st</sup> April – 30 April and 30 April – 31<sup>st</sup> May.

Director	At 1st April 2009	At 30 April 2009	Shares Dealt over period	At 30 April 2009	At 31 <sup>st</sup> May 2009	Shares Dealt over period	Total Shares Dealt
Geoffrey Yates	1,100	1,050	50	1,050	910	140	50 + 140 = 190
Tobey Gilham	1,050	950	100	950	820	130	100 + 130 = 230
Susan Preddy	950	820	130	820	250	570	130 + 570 = 700
Samantha Hoxton	990	1,100	110	1,100	550	550	110 + 550 = 660
Trudy Stupples	1,200	960	240	960	2,400	1,440	240 + 1,440 = 1,680

Thus the correct answer is (B) Trudy Stupples

**Leutts Employee  
shareholding (30 April 2009)**

- ▨ Past employees
- Current employees
- Directors



List of All Directors	Number of Shares		
	At 1st April 2009	At 30 April 2009	At 31 <sup>st</sup> May 2009
Geoffrey Yates	1,100	1,050	910
Tobey Gilham	1,050	950	820
Susan Preddy	950	820	250
Samantha Hoxton	990	1,100	550
Trudy Stupples	1,200	960	2,400

**Q13** If Tobey Gilham sells half of his shareholding at 31 May 2009 at £45 per share, how much is this trade worth?

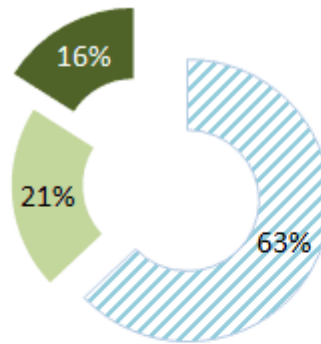
- (A) £3,690
- (B) £18,250
- (C) £18,450
- (D) £9,230
- (E) £36,900

**Step 1** - From the table, Tobey Gilham holds 820 shares at 31 May 2009  
 $820 / 2 = 410$  shares at £45 per share  
 $£45 \times 410 = £18,450$

Thus the correct answer is (C) £18,450

**Leutts Employee  
shareholding (30 April 2009)**

- ▨ Past employees
- Current employees
- Directors



List of All Directors	Number of Shares		
	At 1st April 2009	At 30 April 2009	At 31 <sup>st</sup> May 2009
Geoffrey Yates	1,100	1,050	910
Tobey Gilham	1,050	950	820
Susan Preddy	950	820	250
Samantha Hoxton	990	1,100	550
Trudy Stupples	1,200	960	2,400

**Q14** Which of the following statements is true?

- (A) Current employees and Directors owned 40% of Leutts shares on 30 April 2009
- (B) The largest Director share dealing was 1,440 shares
- (C) Directors held 4,870 shares in total on 30 April 2009
- (D) Tobey Gilham held the most shares of any Director on 1<sup>st</sup> April 2009
- (E) Each Director has less shares on 31 May 2009 compared to 1<sup>st</sup> April 2009

**Step 1** - Go through checking whether each answer option is true or false

**Note 1** - Current employees and Directors owned 37% of Leutts shares on 30 April 2009 – not 40%. **FALSE**

**Note 2** - The largest Director share dealing was 1440 shares which Trudy Stupples bought between 30 April – 31<sup>st</sup> May. **TRUE**

**Note 3** - Directors held 4,880 shares in total on 30 April 2009 – not 4870 shares. **FALSE**




**Note 4** - Trudy Stupples held the most shares of any Director on 1<sup>st</sup> April 2009 – not Tobey Gilham. **FALSE**

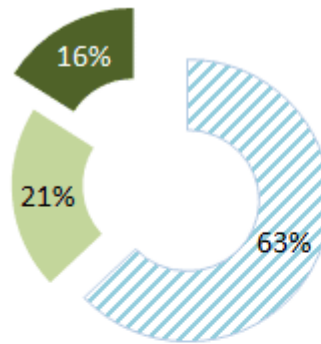
**Note 5** - Each Director does not have less shares on 31 May 2009 compared to 1<sup>st</sup> April 2009 – Trudy Stupples has more shares. **FALSE**

Thus the correct answer is (B) "The largest Director share dealing was 1440 shares"



**Leutts Employee  
shareholding (30 April 2009)**

-  Past employees
-  Current employees
-  Directors



List of All Directors	Number of Shares		
	At 1st April 2009	At 30 April 2009	At 31 <sup>st</sup> May 2009
Geoffrey Yates	1,100	1,050	910
Tobey Gilham	1,050	950	820
Susan Preddy	950	820	250
Samantha Hoxton	990	1,100	550
Trudy Stupples	1,200	960	2,400

**Q15** If Leutts shares are worth £52 on 30 April 2009, then what is the share valuation of the entire company?

- (A) £1,686,000
- (B) £1,588,000
- (C) £1,566,000
- (D) £1,586,000
- (E) £1,856,000

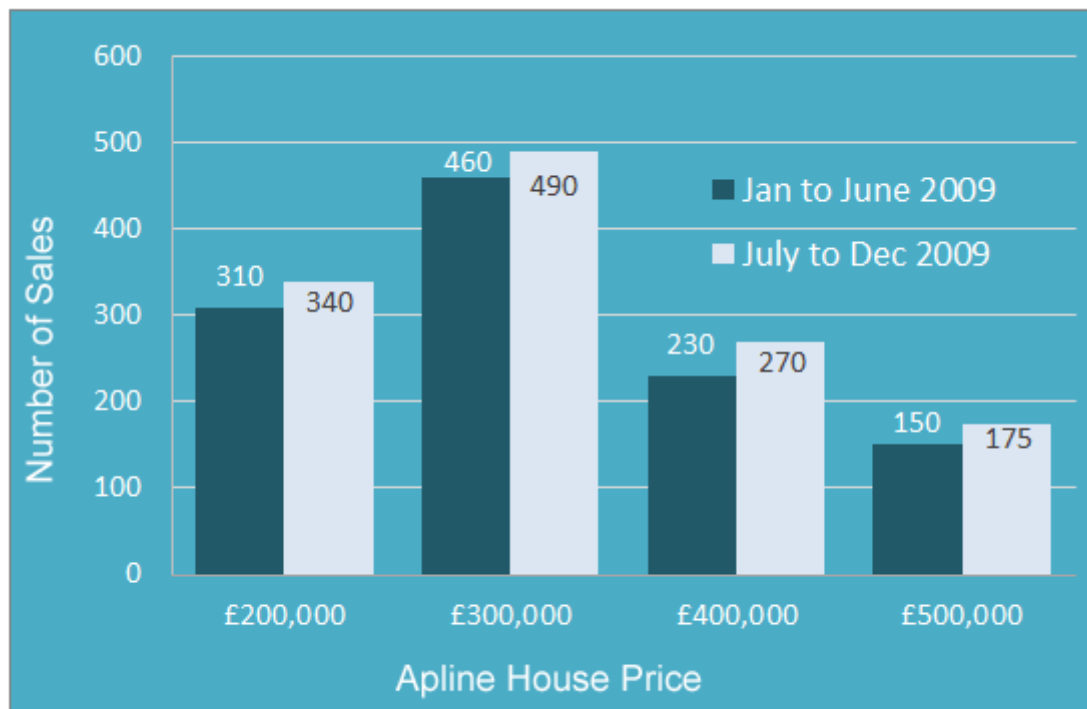
**Step 1** - Total number of Director shares = 4,880

This represents 16% of the total shares

So,  $100\% = 4880 \times 100 / 16 = 30,500$

Company share valuation =  $30,500 \times £52 = £1,586,000$

Thus the correct answer is (D) £1,586,000



**Q16** The total number of £400,000 Apline houses sold in 2009 represented 80% of the annual sales target. If this target was split equally across 5 salerooms, what was the individual sales target for each salesroom?

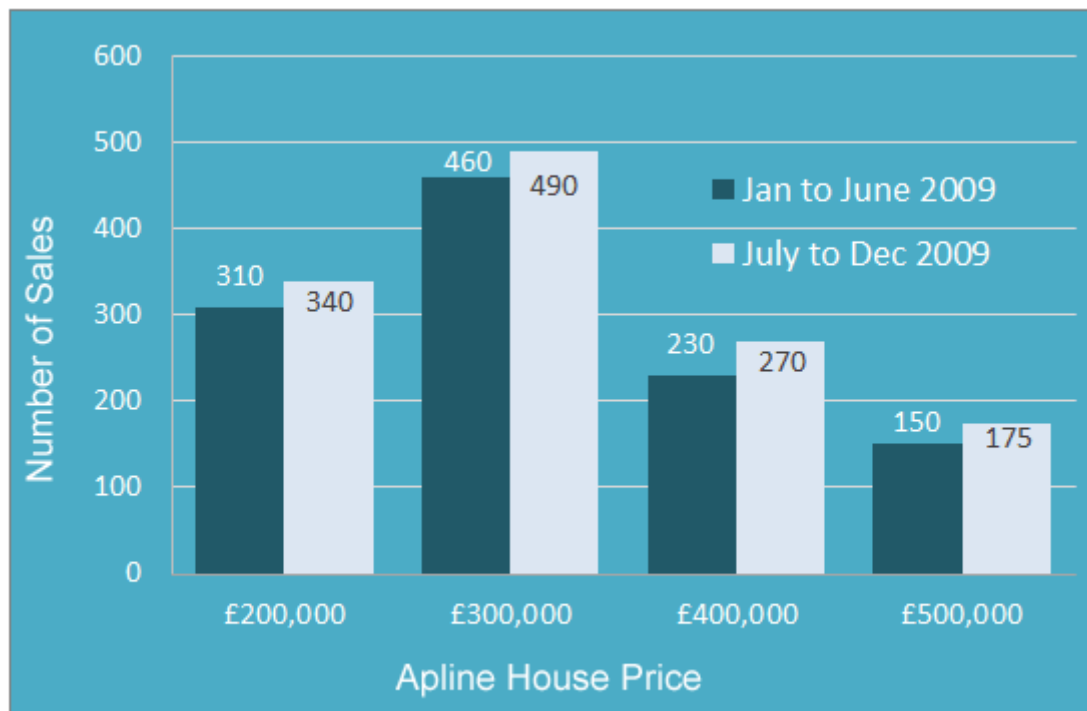
- (A) 155
- (B) 120
- (C) 125
- (D) 325
- (E) 225

**Step 1** - Total £400,000 house sales =  $230 + 270 = 500$  houses

**Step 2** -  $500 = 2009 \text{ target (5 salesrooms)} \times 80\% / 100$   
 $2009 \text{ target (5 salesrooms)} = 500 / 0.8 = 625$

**Step 3** -  $2009 \text{ target per salesroom} = 625 / 5 = 125$

Thus the correct answer is (C) 125



**Q17** Stamp duty of 3% is paid on house sales over £250,000. How much stamp duty is paid by purchasers of Apline houses in 2009?

- (A) £16,425,000
- (B) £18,550,000
- (C) £19,425,000
- (D) £6,000,000
- (E) £8,550,000

**Step 1** – Calculate the total number of houses where stamp duty is due

£300,000 houses:  $460 + 490 = 950$

£400,000 houses:  $230 + 270 = 500$

£500,000 houses:  $150 + 175 = 325$

**Step 2** – Calculate the stamp duty due

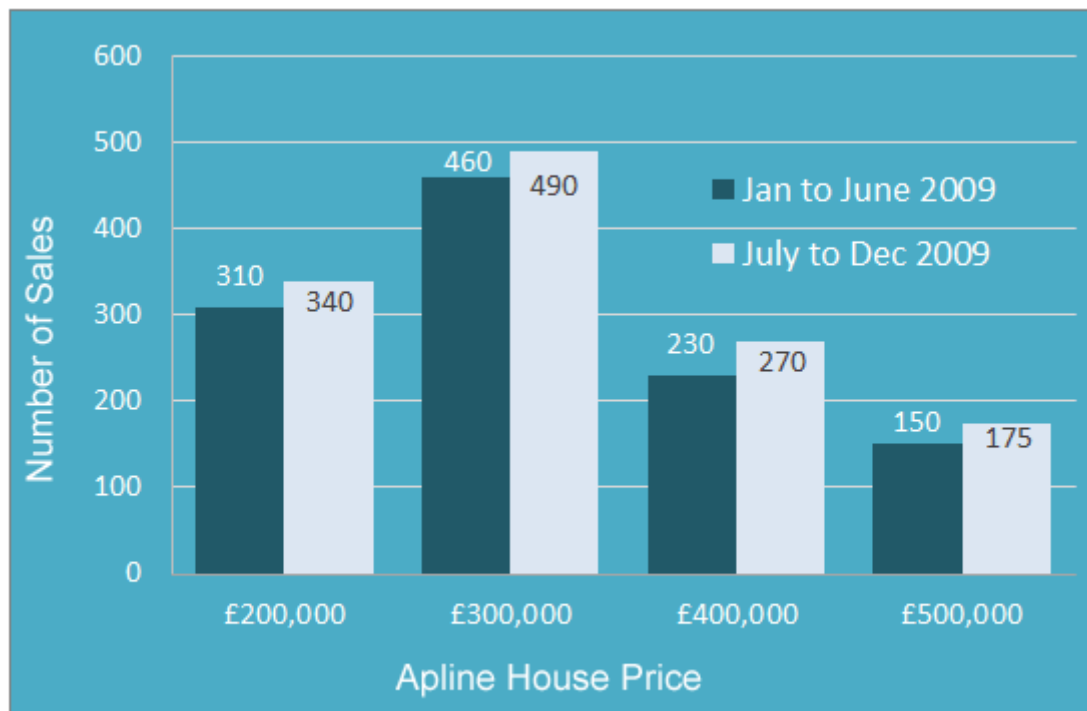
$950 \times £300,000 \times 3\% = £8,550,000$

$500 \times £400,000 \times 3\% = £6,000,000$

$325 \times £500,000 \times 3\% = £4,875,000$

Total = £19,425,000

Thus the correct answer is (C) £19,425,000



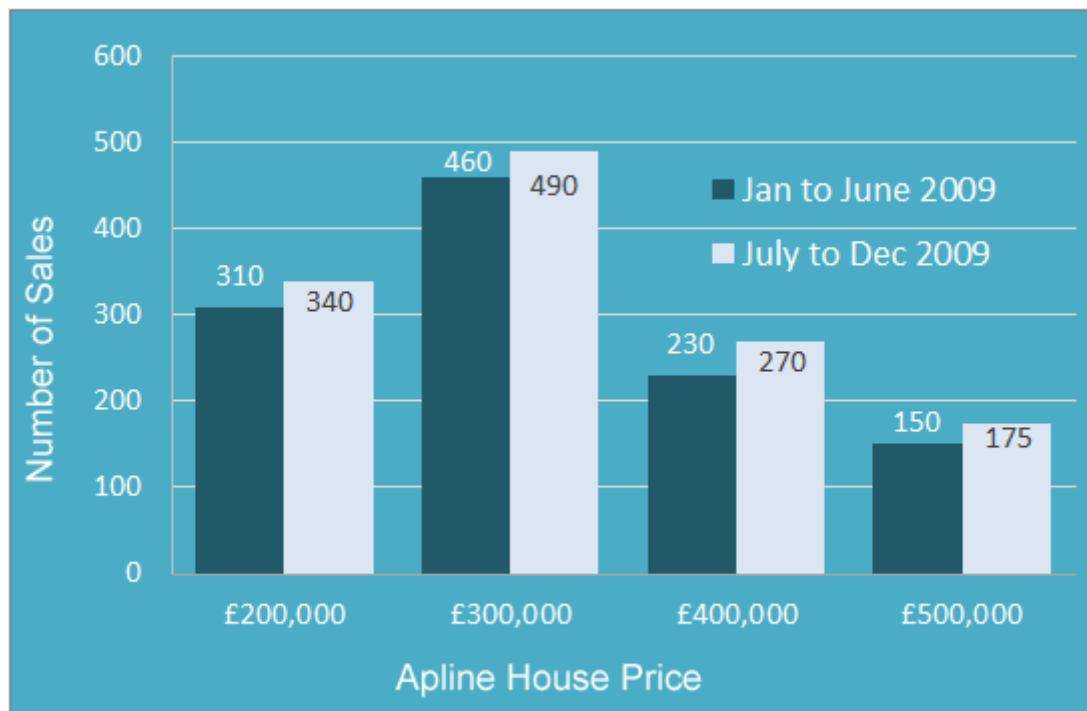
**Q18** What is the total value of 2009 Apline house sales?

- (A) £127.5 million
- (B) £777.5 million
- (C) £115 million
- (D) £162.5 million
- (E) £353,409 million

**Step 1** - Calculate the total house sales for each half-year period, as follows;

Price	Jan to June 2009	July to Dec 2009	Total Sales (£million)
£200,000	310	340	130
£300,000	460	490	285
£400,000	230	270	200
£500,000	150	175	162.5
			777.5

Thus the correct answer is (B) £777.5 million



**Q19** In 2010, the absolute difference in Alpine house sales between 2009's July-Dec and Jan-June periods is expected to increase by a fifth. What is the projected difference in Alpine house sales between July-Dec and Jan-June for 2010 (in £million)?

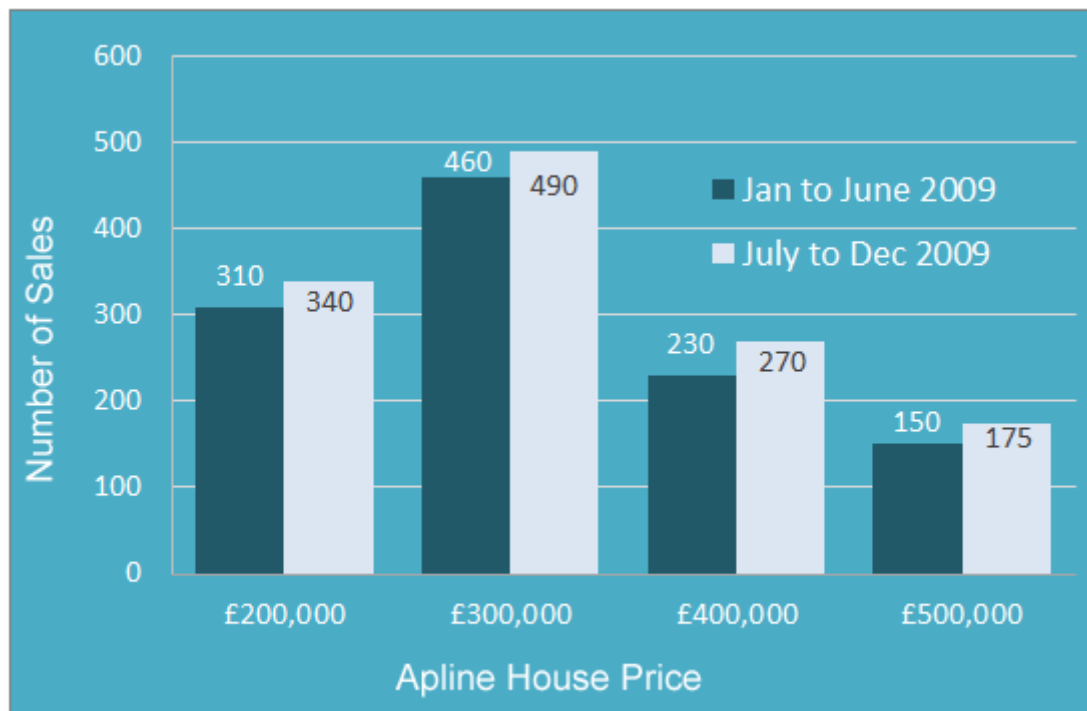
- (A) 43.5
- (B) 52.2
- (C) 100
- (D) 125
- (E) 125.5

**Step 1** - Calculate the difference for 2009, as follows;

	Jan to June 2009	July to Dec 2009	Difference (houses sold)	Difference (£million)
£200,000	310	340	30	6
£300,000	460	490	30	9
£400,000	230	270	40	16
£500,000	150	175	25	12.5
			125	43.5

**Step 2** – Add the increase of a fifth  
 $43.5 \times 1.2 = £52.2 \text{ million}$

Thus the correct answer is (B) 52.2.



**Q20** A marketing drive is to be used to increase the value of Jan-June house sales to the value of July-December house sales. If each £ spent on marketing results in £3 of increased sales, what value must be spent on marketing?

- (A) £156.6 million
- (B) £75.4 million
- (C) £52.2 million
- (D) £36.6 million
- (E) £14.5 million

**Step 1** – Calculate the difference between the value of Jan-June house sales and the value of July-December house sales. This sum in millions is:  
 $6 + 9 + 16 + 12.5 = 43.5$  million.

**Step 2** – Calculate the marketing spend needed  
 $43.5 / 3 = 14.5$  (million).

Thus the correct answer is (E) £14.5 million

TOTAL SALES (£millions)			
Region	Previous Year	Current Year	Next Year's Projection
Northern	310	310	320
Southern	170	160	165
Eastern	290	300	275
Western	255	280	270
Central	110	90	125

**Q21** If the sales projections for next year prove accurate, which region will have maintained or increased sales levels each year from the previous year to next year?

- (A) Northern region
- (B) Southern region
- (C) Eastern region
- (D) Western region
- (E) Central region

**Step 1** – Calculate the regional sales for the current year using the table.

**Step 2** – Compare the numbers from Step 1 to the figures for the previous year and for next year, as follows;

Region	Previous Year	Current year	Next Year's Projection
Northern	310	310	320
Southern	170	160	165
Eastern	290	300	275
Western	255	280	270
Central	110	90	125

Only the Northern region has maintained sales at 310 for the previous and current year, as well as projecting an increase in sales to 320 for next year.

Thus the correct Answer is (A) Northern region

TOTAL SALES (£millions)			
Region	Previous Year	Current Year	Next Year's Projection
Northern	310	310	320
Southern	170	160	165
Eastern	290	300	275
Western	255	280	270
Central	110	90	125

**Q22** What is the absolute difference between the lowest and the highest performing region (to the nearest £million) in the current year?

- (A) £216 million
- (B) £217 million
- (C) £218 million
- (D) £219 million
- (E) £220 million

**Step 1** - Calculate the difference between the highest regional sales (Northern) and the lowest regional sales (Central)

$$310 - 90 = \text{£}220 \text{ million}$$

Thus the correct Answer is (E) £220 million



TOTAL SALES (£millions)			
Region	Previous Year	Current Year	Next Year's Projection
Northern	310	310	320
Southern	170	160	165
Eastern	290	300	275
Western	255	280	270
Central	110	90	125

**Q23** If next year's forecasts are scaled back by a quarter for the Northern and Western region, and by a fifth for the Southern and Eastern regions, what will be the total projected sales for all 5 regions?

- (A) £1,155 million
- (B) £924 million
- (C) £919.50 million
- (D) £942 million
- (E) £866.25 million

**Step 1** - Calculate the new regional sales for the 4 regions affected and sum these, as shown in the table below:

Region	Next Year's Projection	New Projection
Northern	320	$\times \frac{3}{4} = 240$
Southern	165	$\times \frac{4}{5} = 132$
Eastern	275	$\times \frac{4}{5} = 220$
Western	270	$\times \frac{3}{4} = 202.5$
Central	125	125
TOTAL		919.50

Thus the correct Answer is (C) £919.50 million

TOTAL SALES (£millions)			
Region	Previous Year	Current Year	Next Year's Projection
Northern	310	310	320
Southern	170	160	165
Eastern	290	300	275
Western	255	280	270
Central	110	90	125

**Q24** What were the ratios for the Central: Eastern regional sales for the Previous Year compared to the Current Year?

- (A) 9:30 (Previous Year); 3:11 (Current Year)
- (B) 20:50 (Previous Year); 3:11 (Current Year)
- (C) 10:30 (Previous Year); 5:11 (Current Year)
- (D) 11:29 (Previous Year); 3:10 (Current Year)
- (E) 5:11 (Previous Year); 11:29 (Current Year)

**Step 1** – Put the Previous Year's sales for these regions into a ratio  
110:290

**Step 2** – Put the Current Year's sales for these regions into a ratio  
90:300

**Step 3** – Simplify these ratios by dividing by the highest common denominator  
11:29 for Previous Year (after division by 10)  
3:10 for Current Year (after division by 30)

Thus the correct answer is (D) 11:29 (Previous Year); 3:10 (Current Year)

TOTAL SALES (£millions)			
Region	Previous Year	Current Year	Next Year's Projection
Northern	310	310	320
Southern	170	160	165
Eastern	290	300	275
Western	255	280	270
Central	110	90	125

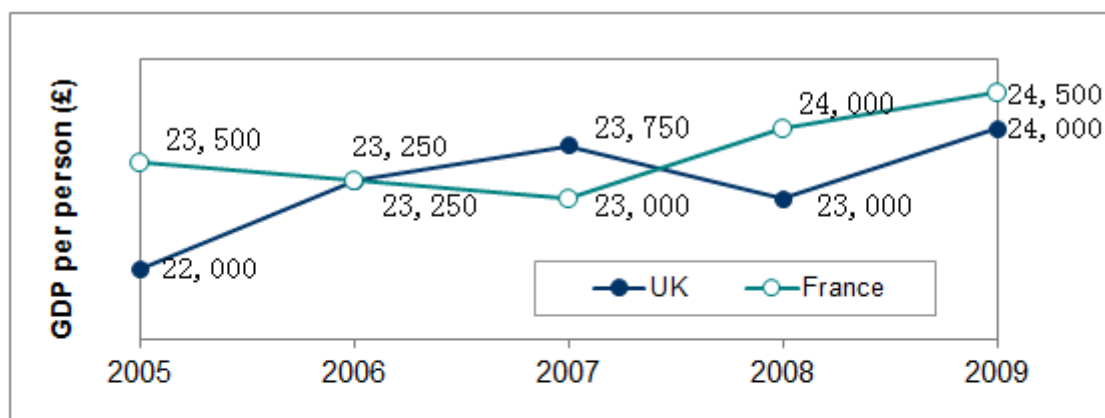
**Q25** Put the regions in increasing order of total combined sales for the current year and next year's projection

- (A) Central, Southern, Western, Eastern, Northern
- (B) Southern, Central, Western, Eastern, Northern
- (C) Central, Western, Southern, Eastern, Northern
- (D) Central, Southern, Western, Northern, Eastern
- (E) Central, Southern, Northern, Western, Eastern

**Step 1** - Calculate the totals for each region, as follows:

	Current Year	Next Year	Total
Northern	310	320	630
Southern	160	165	325
Eastern	300	275	575
Western	280	270	550
Central	90	125	215

Thus the correct answer is (A) Central, Southern, Western, Eastern, Northern



2009	Country's Gross Domestic Product (£billion)	GDP Per person (£1000s)
UK	2.05	24
France	2.4	24.5
Germany	3.1	25.7
Spain	1.4	20.5
Italy	1.95	23.6

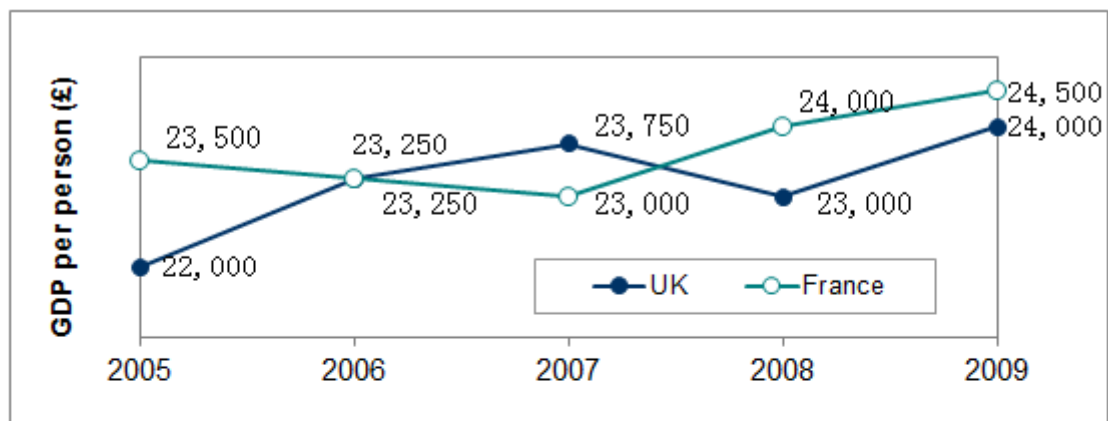
**Q26** In which year (or years) was there more than a 3.3% difference in the GDP per person for France compared to the UK?

- (A) 2005, 2007
- (B) 2006, 2008
- (C) 2007, 2008
- (D) 2008, 2005
- (E) 2009, 2005

**Step 1** – Calculate the % difference as shown in the table below:

Year	UK	France	Difference	% Difference
2005	22000	23500	1500	6.82
2006	23250	23250	0	0.00
2007	23750	23000	-750	-3.16
2008	23000	24000	1000	4.35
2009	24000	24500	500	2.08

Thus the correct answer is (D) 2008, 2005



2009	Country's Gross Domestic Product (£billion)	GDP Per person (£1000s)
UK	2.05	24
France	2.4	24.5
Germany	3.1	25.7
Spain	1.4	20.5
Italy	1.95	23.6

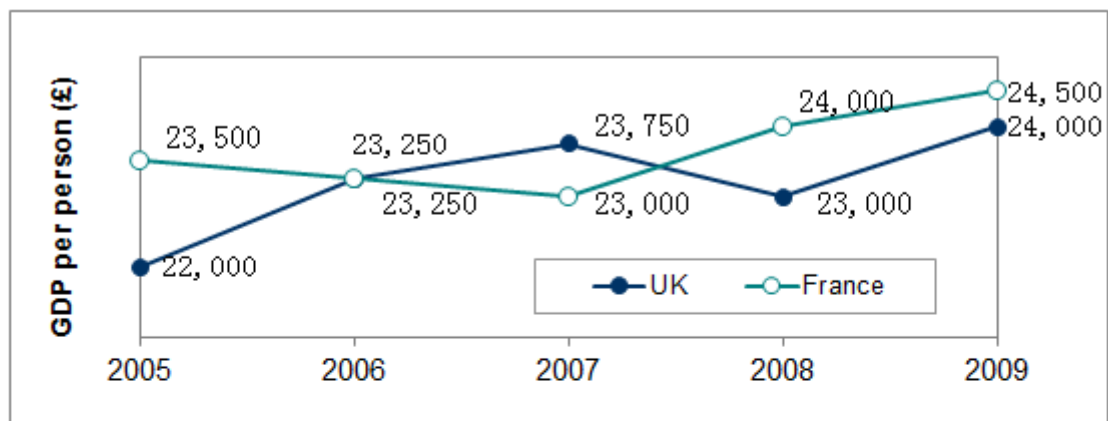
**Q27** Which of the following statements is false?

- (A) Germany has the highest GDP of the countries shown.
- (B) Germany's GDP is over 20% higher than the France's GDP in 2009.
- (C) The 2005-2009 range of UK GDP per person is £23,500-£24,500.
- (D) The average GDP per country for the 5 countries shown is £2.18 billion.
- (E) The lowest and highest GDP per person are £20,500 and £25,700 respectively.

**Step 1** - Go through each of the answer options checking if it is true or false:

- a) *Is True*
- b) *Germany's GDP (3.1) is over 20% higher than the France's GDP (2.4). TRUE*
- c) *From the graph, France's GDP per person ranges from £23,500 to £24,500, not the UK's. So this is FALSE.*
- d) *The average GDP per country for the 5 countries shown is  $(2.05 + 2.4 + 3.1 + 1.4 + 1.95) / 5 = 2.18$  TRUE*
- e) *The lowest and highest GDP per person are £20,500 and £25,700 respectively. TRUE*

Thus the False answer is (C) "The 2005-2009 range of UK GDP per person is £23,000-£24,500."



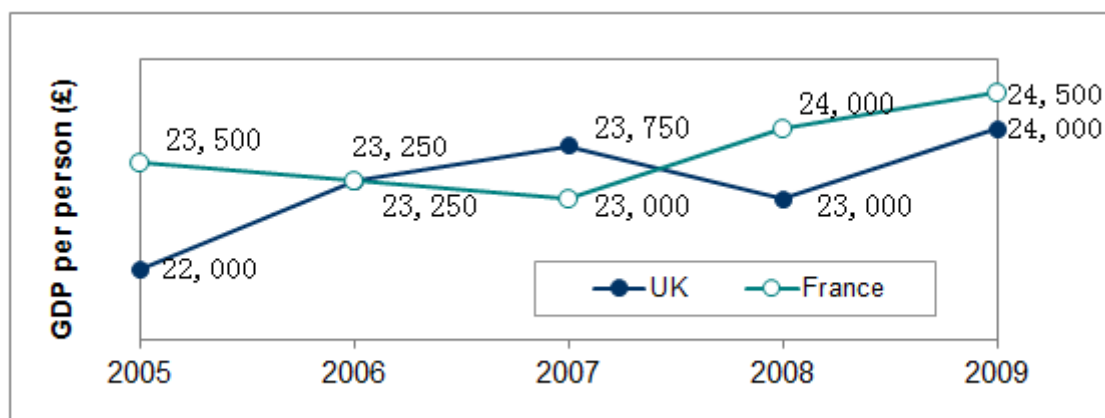
2009	Country's Gross Domestic Product (£billion)	GDP Per person (£1000s)
UK	2.05	24
France	2.4	24.5
Germany	3.1	25.7
Spain	1.4	20.5
Italy	1.95	23.6

**Q28** Which two countries had the smallest difference in GDP per person in 2009?

- (A) UK, Italy
- (B) France, Italy
- (C) Germany, Italy
- (D) Spain, Italy
- (E) Spain, France

**Step 1** - From looking at the table Country Gross Domestic Product there is only a 0.4 difference in GDP per person between the UK (24.0) and Italy (23.6)

Thus the correct answer is (A) UK, Italy



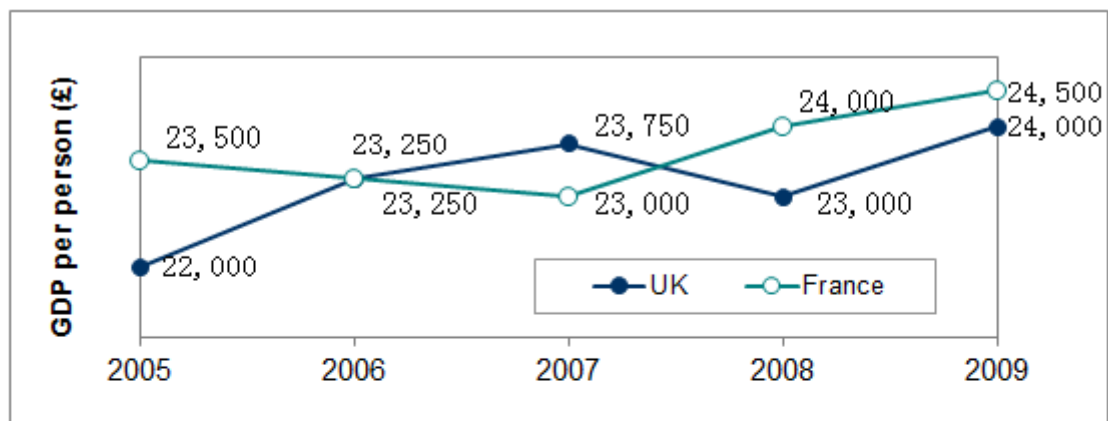
2009	Country's Gross Domestic Product (£billion)	GDP Per person (£1000s)
UK	2.05	24
France	2.4	24.5
Germany	3.1	25.7
Spain	1.4	20.5
Italy	1.95	23.6

**Q29** Between which years were the GDPs per person increasing in both France and the UK?

- (A) 2008-2009
- (B) 2007-2008
- (C) 2006-2007
- (D) 2005-2006
- (E) Cannot tell from data

**Step 1** - Look at the direction of the lines representing the UK and France (on the line graph). For both the France and the UK to be increasing the lines need to both be pointing upwards. This is only true for 2008-2009.

Thus the correct answer is (A) 2008-2009



2009	Country's Gross Domestic Product (£billion)	GDP Per person (£1000s)
UK	2.05	24
France	2.4	24.5
Germany	3.1	25.7
Spain	1.4	20.5
Italy	1.95	23.6

**Q30** What was the average GDP per person for France and the UK across the 5 years shown?

- (A) £23,500 (France); £23,200 (UK)
- (B) £23,650 (France); £23,500 (UK)
- (C) £23,500 (France); £23,000 (UK)
- (D) £23,000 (France); £23,500 (UK)
- (E) £23,650 (France); £23,200 (UK)

**Step 1** - Calculate the average as shown in the table below:

Year	UK	France
2005	22000	23500
2006	23250	23250
2007	23750	23000
2008	23000	24000
2009	24000	24500
<b>TOTAL</b>	<b>116000</b>	<b>118250</b>
<b>AVERAGE</b>	<b>23200</b>	<b>23650</b>

Thus the correct answer is (E) £23,650 (France); £23,200 (UK)

**-- End of Test --**