Numerical Reasoning

Test 4

Questions Booklet

Instructions

This practice test contains **30 questions**, and you will have **30 minutes** to answer them.

Each question will have four possible answers, one of which is correct.

Calculators are permitted for this test. It's recommended to have some rough paper for your calculations. 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.

Try to find a time and place where you will not be interrupted during the test. When you are ready, turn to the next page and begin.

Tze Motor Cars - Accounts (2006-2010)

	2010	2009	2008	2007	2006
Sales	£1,047.9 m	£761.9 m	£1,005.0 m	£627.7 m	£637.8 m
Car units sold	16,710	12,636	15,905	12,163	12,360
Average sales price (per car)	£62,709	£60,296	£63,188	£51,607	£51,602
Average production cost (per car)	£14,500	£15,800	£13,600	£11,400	£13,750
Annual service charge per car	£250	£300	£350	£275	£400

Q1 In which year was there the highest ratio of average sales price: average production cost?

(A) 2006
(B) 2007
(C) 2008
(D) 2009
(E) 2010

Tze Motor Cars - Accounts (2006-2010)

	2010	2009	2008	2007	2006
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Annual service charge per car	£250	£300	£350	£275	£400

Q2 What were the total production costs for 2009 (to the nearest £100,000)?

(A) £199.6 million
(B) £199.8 million
(C) £216.2 million
(D) £216.3 million
(E) £242.2 million

Tze Motor Cars - Accounts (2006-2010)

	2010	2009	2008	2007	2006
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Annual service charge per car	£250	£300	£350	£275	£400

Q3 If the dealer paid upfront for the annual service charge of each car sold, in which year would this have cost the dealer the least amount?

(A) 2006
(B) 2007
(C) 2008
(D) 2009
(E) 2010

Tze Motor Cars - Accounts (2006-2010)

	2010	2009	2008	2007	2006
Sales	£1,047.9 m	£761.9 m	£1,005.0 m	£627.7 m	£637.8 m
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Annual service charge per car	£250	£300	£350	£275	£400

Q4 If the average sales price for 2010 was 5% higher, but the number of cars sold that year was 9% lower, by what percent would the sales revenue have decreased for 2010?

(A) No change
(B) 3.50%
(C) 3.55%
(D) 4.45%
(E) 4.60%

Tze Motor Cars - Accounts (2006-2010)

	2010	2009	2008	2007	2006
Sales	£1,047.9 m	£761.9 m	£1,005.0 m	£627.7 m	£637.8 m
Car units sold	16,710	12,636	15,905	12,163	12,360
Average sales price (per car)	£62,709	£60,296	£63,188	£51,607	£51,602
Average production cost (per car)	£14,500	£15,800	£13,600	£11,400	£13,750
Annual service charge per car	£250	£300	£350	£275	£400

Q5 In 2008, car sales were split across 3 equally-priced models in the ratio of 7:8:6 for models A, B and C respectively. What was the sales revenue for model A?

(A) £287 million
(B) £335 million
(C) £382 million
(D) £383 million
(E) Can't tell from data

YLF plc – Total costs by year (£000s)

	2006	2007	2008	2009	2010
Staff costs	226	234	248	230	215
Property depreciation	120	117	112	115	132
Inventories	11,410	12,505	11,842	15,322	16,420
Loan impairment	13	12	9	17	22
Other expenses	336	459	357	413	502

Q6 For how many years has the combined cost of Property depreciation and Staff costs exceeded that of Other expenses?

(A) 1 year
(B) 2 years
(C) 3 years
(D) 4 years
(E) 5 years

YLF plc – Total costs by year (£000s)

	2006	2007	2008	2009	2010
Staff costs	226	234	248	230	215
Property depreciation	120	117	112	115	132
Inventories	11,410	12,505	11,842	15,322	16,420
Loan impairment	13	12	9	17	22
Other expenses	336	459	357	413	502

Q7 In which year, or years, was there a 2:1 ratio of Staff costs: Property depreciation?

(A) 2010
(B) 2007 and 2008
(C) 2008 and 2009
(D) 2007 and 2009
(E) 2006, 2007 and 2009

YLF plc – Total costs by year (£000s)

	2006	2007	2008	2009	2010
Staff costs	226	234	248	230	215
Property depreciation	120	117	112	115	132
Inventories	11,410	12,505	11,842	15,322	16,420
Loan impairment	13	12	9	17	22
Other expenses	336	459	357	413	502

Q8 What percent of total costs did Property depreciation represent in 2007?

(A) 4.7%
(B) 3.7%
(C) 2.7%
(D) 1.9%
(E) 0.9%

YLF plc – Total costs by year (£000s)

	2006	2007	2008	2009	2010
Staff costs	226	234	248	230	215
Property depreciation	120	117	112	115	132
Inventories	11,410	12,505	11,842	15,322	16,420
Loan impairment	13	12	9	17	22
Other expenses	336	459	357	413	502

Q9 Which cost changed by the second largest percent from 2008 to 2010?

(A) Other expenses
(B) Staff costs
(C) Loan impairment
(D) Inventories
(E) Property depreciation

YLF plc – Total costs by year (£000s)

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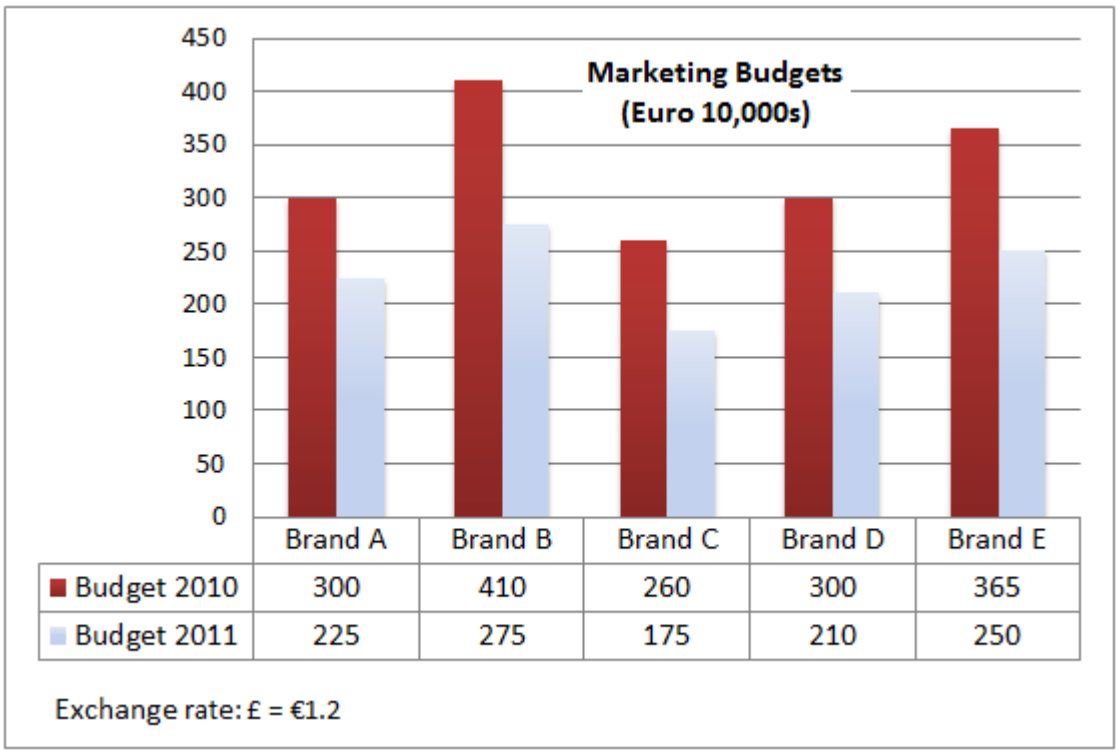
Staff costs	226	234	248	230	215
Property depreciation	120	117	112	115	132
Inventories	11,410	12,505	11,842	15,322	16,420
Loan impairment	13	12	9	17	22
Other expenses	336	459	357	413	502

Q10 If the 2006 Inventories cost had increased by an eighth compared to the previous year, what was the previous year's Inventories cost (to the nearest £10,000)?

(A) £10.41 million
(B) £10.14 million
(C) £1.04 million
(D) £1.01 million
(E) Can't tell from data

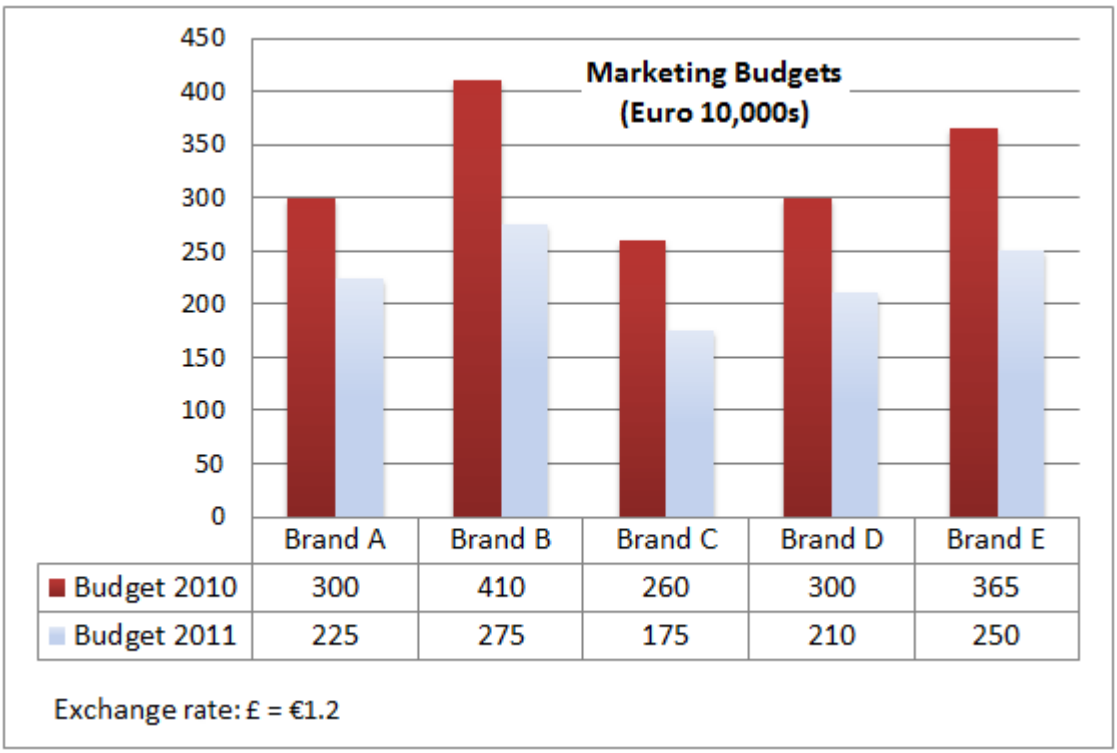


	Brand A	Brand B	Brand C	Brand D	Brand E
Budget 2010	300	410	260	300	365
Budget 2011	225	275	175	210	250

Exchange rate: £ = €1.2

Q11 Between 2010 and 2011 what is the total cut in the marketing budget across the 5 Brands combined (in €10,000s)?

(A) 135
(B) 400
(C) 500
(D) 1,135
(E) 1,535

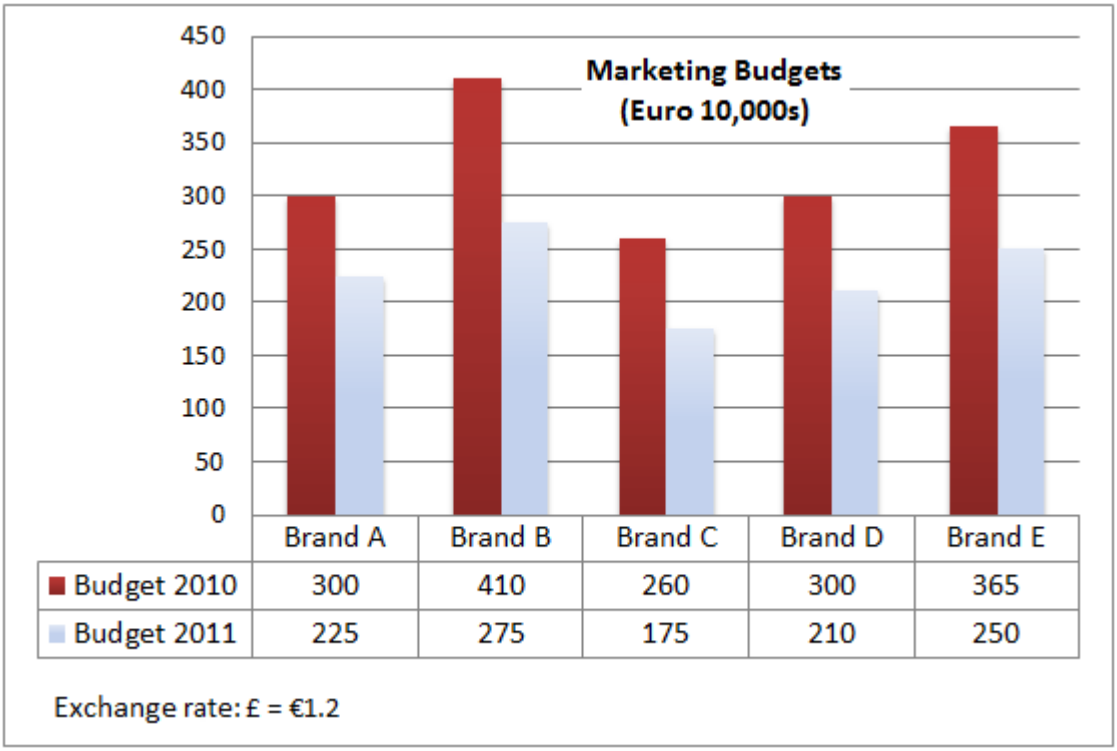


	Brand A	Brand B	Brand C	Brand D	Brand E
Budget 2010	300	410	260	300	365
Budget 2011	225	275	175	210	250

Exchange rate: £ = €1.2

Q12 Which Brand has suffered the largest percentage cut in its Marketing Budget?

(A) Brand A
(B) Brand B
(C) Brand C
(D) Brand D
(E) Brand E

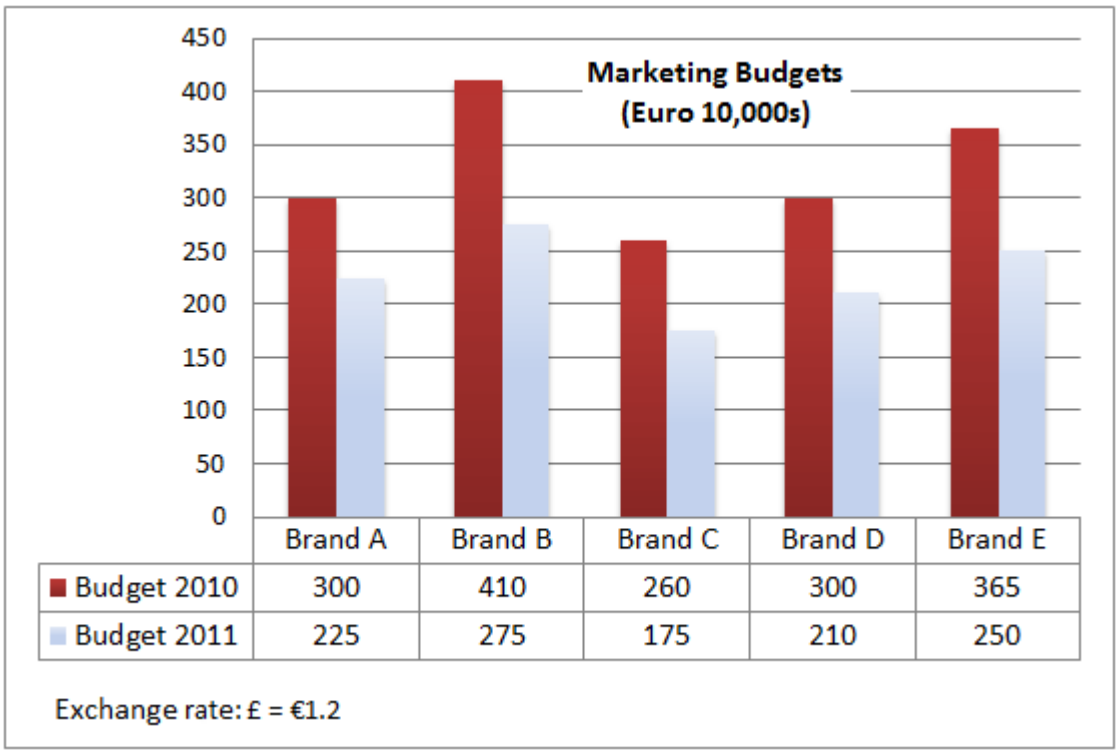


	Brand A	Brand B	Brand C	Brand D	Brand E
Budget 2010	300	410	260	300	365
Budget 2011	225	275	175	210	250

Exchange rate: £ = €1.2

Q13 Between 2010 and 2011 what has been the mean percentage Budget reduction for each of the 5 Brands (to 1 decimal place)?

(A) 30.4%
(B) 30.5%
(C) 31.4%
(D) 31.5%
(E) 32.4%

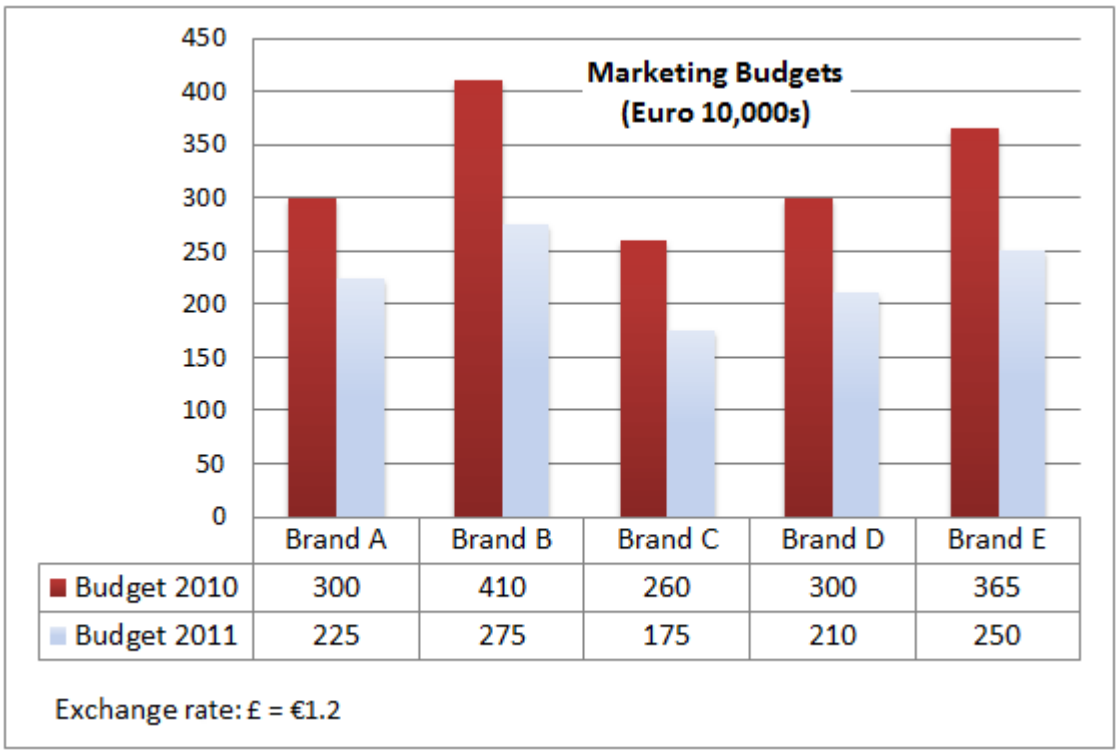


	Brand A	Brand B	Brand C	Brand D	Brand E
Budget 2010	300	410	260	300	365
Budget 2011	225	275	175	210	250

Exchange rate: £ = €1.2

Q14 Brand A and Brand D are to have their number of staff reduced by the same percentage reduction seen by their Marketing Budgets between 2010 and 2011. If the number of staff at Brand A was originally 120 and the number of staff at Brand D triple this, what are the new reduced staff numbers for each Brand?

(A) Can't tell from the data
(B) 35 (Brand A); 142 (Brand D)
(C) 90 (Brand A); 252 (Brand D)
(D) 60 (Brand A); 240 (Brand D)
(E) 50 (Brand A); 360 (Brand D)

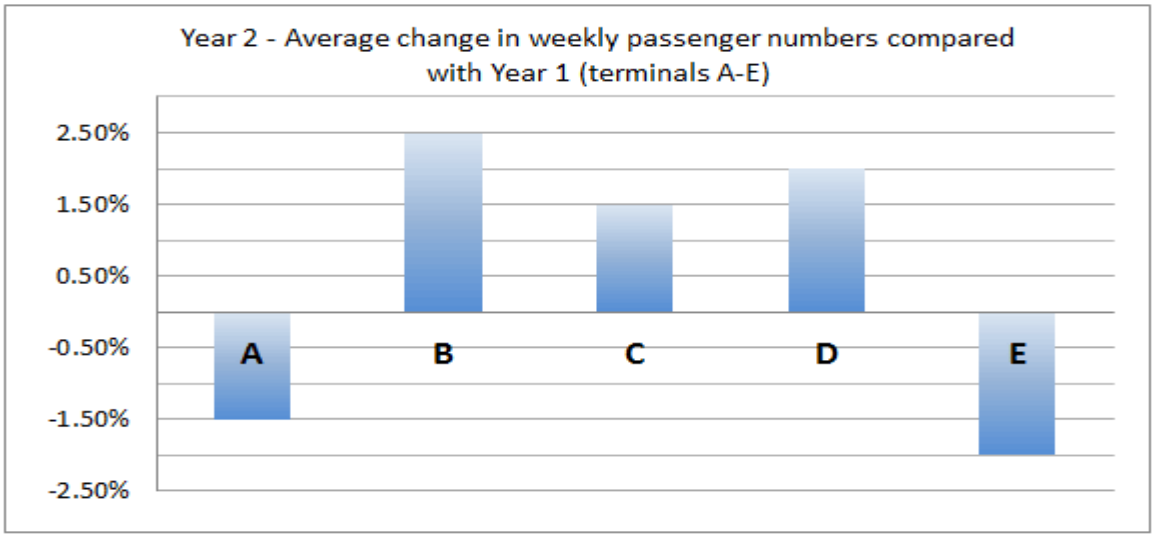


	Brand A	Brand B	Brand C	Brand D	Brand E
Budget 2010	300	410	260	300	365
Budget 2011	225	275	175	210	250

Exchange rate: £ = €1.2

Q15 The total 2011 Marketing Budget for all five Brands is to be cut by a quarter in 2012. In £, what is the 2012 Marketing Budget? (to the nearest £100,000)?

(A) £3 million
(B) £3.1 million
(C) £5.2 million
(D) £6.2 million
(E) £7.1 million

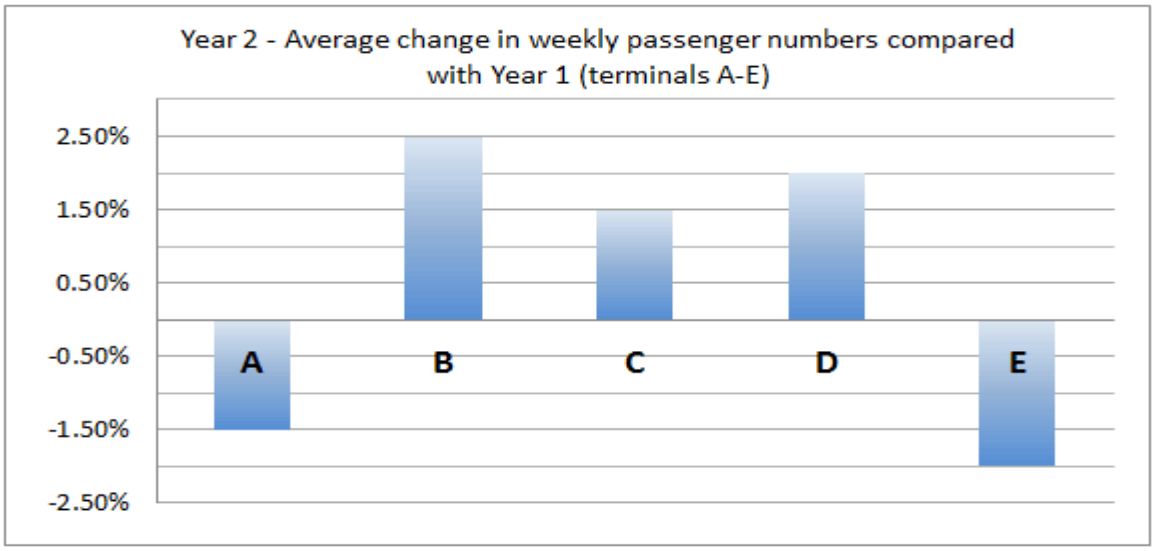


Year 1 - Average number of passengers per week (1,000s)

All Terminals	A	B	C	D	E
Male passengers	52.9	66.6	62.9	77.1	78.8
Female passengers	52.7	66.5	63.1	76.9	78.5

Q16 Which terminal had the highest number of passengers per week in Year 2?

(A) Terminal A
(B) Terminal B
(C) Terminal C
(D) Terminal D
(E) Terminal E



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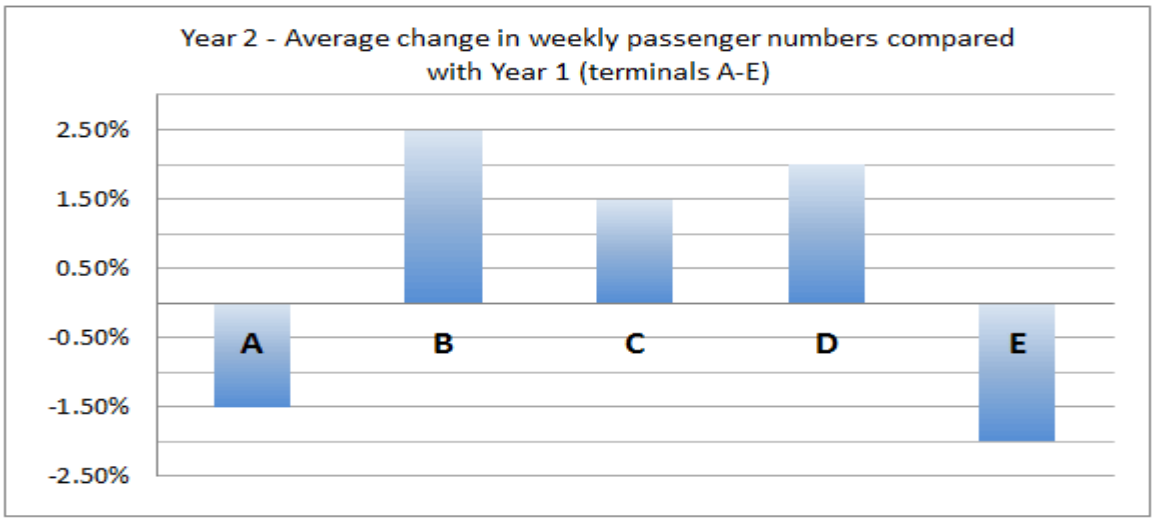
All Terminals	A	B	C	D	E
Male passengers	52.9	66.6	62.9	77.1	78.8
Female passengers	52.7	66.5	63.1	76.9	78.5

Q17 For Year 1 what was the average weekly difference between male and female passengers per terminal?

(A) 2,200 more males
(B) 1,200 more males
(C) 220 more females
(D) 140 more females
(E) 120 more males



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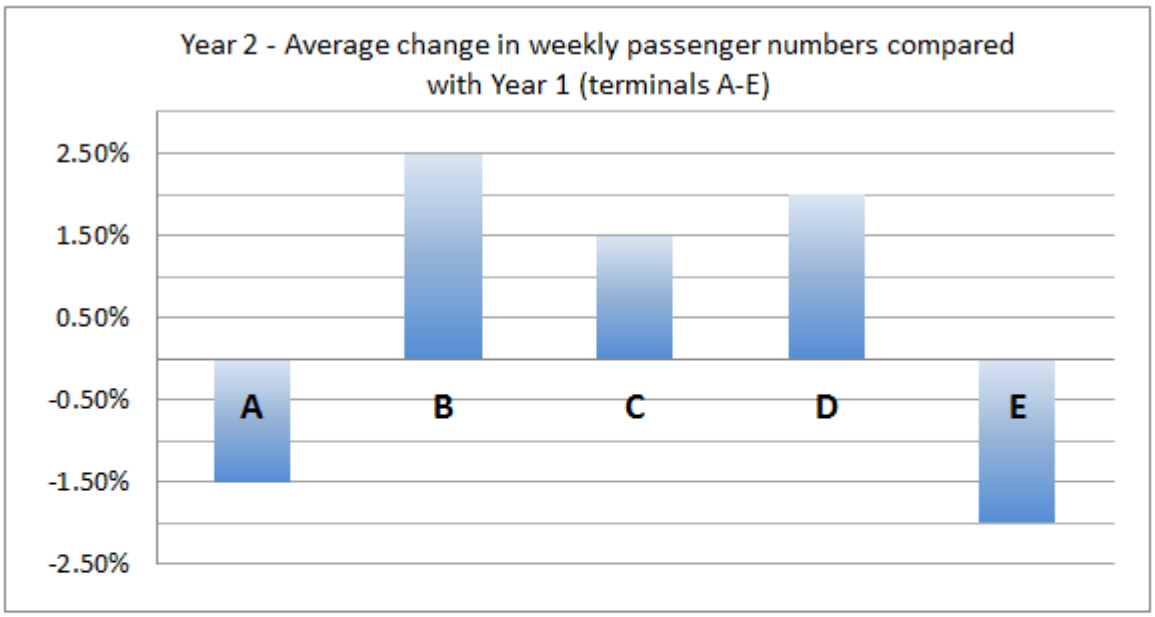
All Terminals	A	B	C	D	E
Male passengers	52.9	66.6	62.9	77.1	78.8
Female passengers	52.7	66.5	63.1	76.9	78.5

Q18 Terminals A and D serve domestic flights, whilst Terminals B, C and E serve international flights. Each week on average how many more passengers in Year 1 took international flights compared to domestic flights (to the nearest 10,000)?

(A) 14,000
(B) 15,000
(C) 140,000
(D) 150,000
(E) 160,000

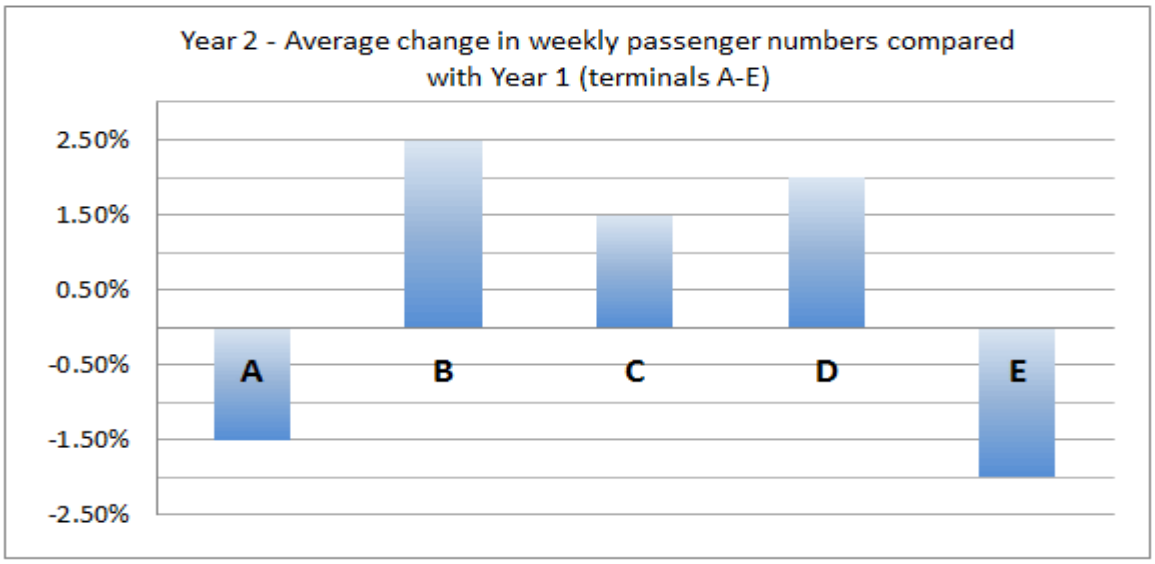


Year 1 - Average number of passengers per week (1,000s)

All Terminals	A	B	C	D	E
Male passengers	52.9	66.6	62.9	77.1	78.8
Female passengers	52.7	66.5	63.1	76.9	78.5

Q19 In Year 2 each passenger spends on average £4.25 in Terminal C's shops. How much is the average weekly revenue for Terminal C's shops in Year 2 (to the nearest £10,000)?

(A) £4,400,000
(B) £540,000
(C) £54,000
(D) £46,000
(E) £44,000

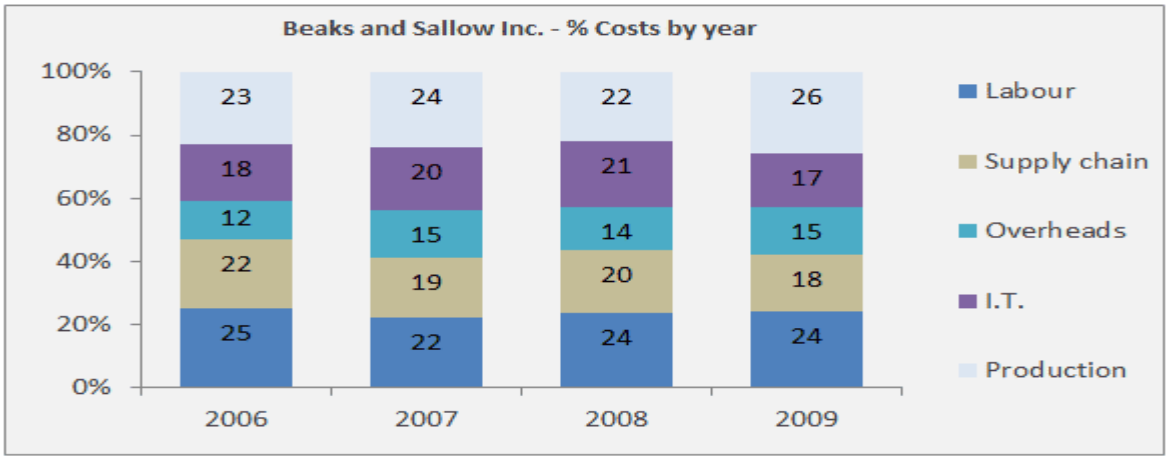


Year 1 - Average number of passengers per week (1,000s)

All Terminals	A	B	C	D	E
Male passengers	52.9	66.6	62.9	77.1	78.8
Female passengers	52.7	66.5	63.1	76.9	78.5

Q20 A competitor airport operator called Vefy Flights operates a different airport with half the average Year 1 weekly number of passengers operating from 3 terminals. What is Vefy Flights's average weekly number of passengers per terminal (to the nearest 1,000)?

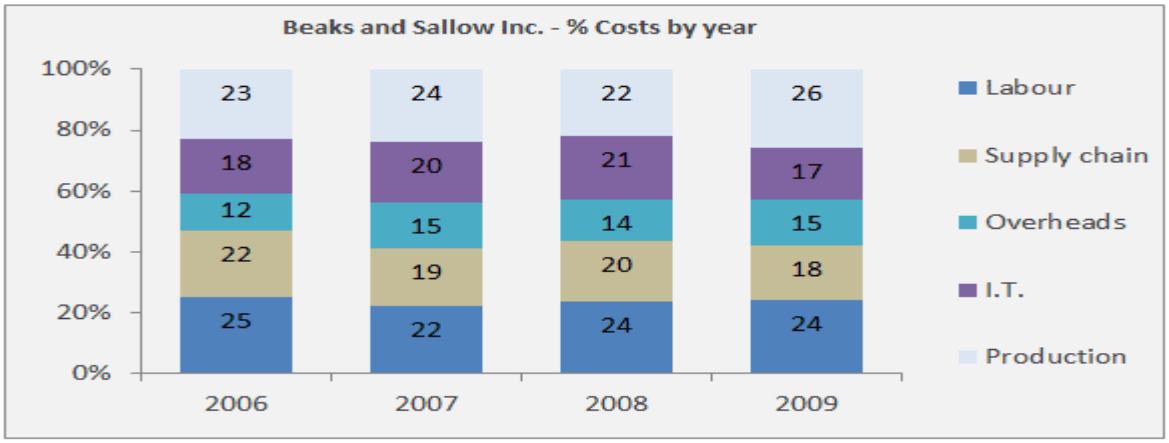
(A) 110,000
(B) 113,000
(C) 133,000
(D) 142,000
(E) 150,000



2010 Total Costs (£10,000s)	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Overheads	104	105	102	101
Supply chain	186	174	162	166
Labour	248	245	319	265
I.T.	149	138	140	191
Production	227	253	291	287

Q21 If the total 2010 costs represent a 5% increase on the total 2009 costs, what were the total 2009 costs (to the nearest £million)?

(A) £3 million
(B) £4 million
(C) £36 million
(D) £37 million
(E) £38 million



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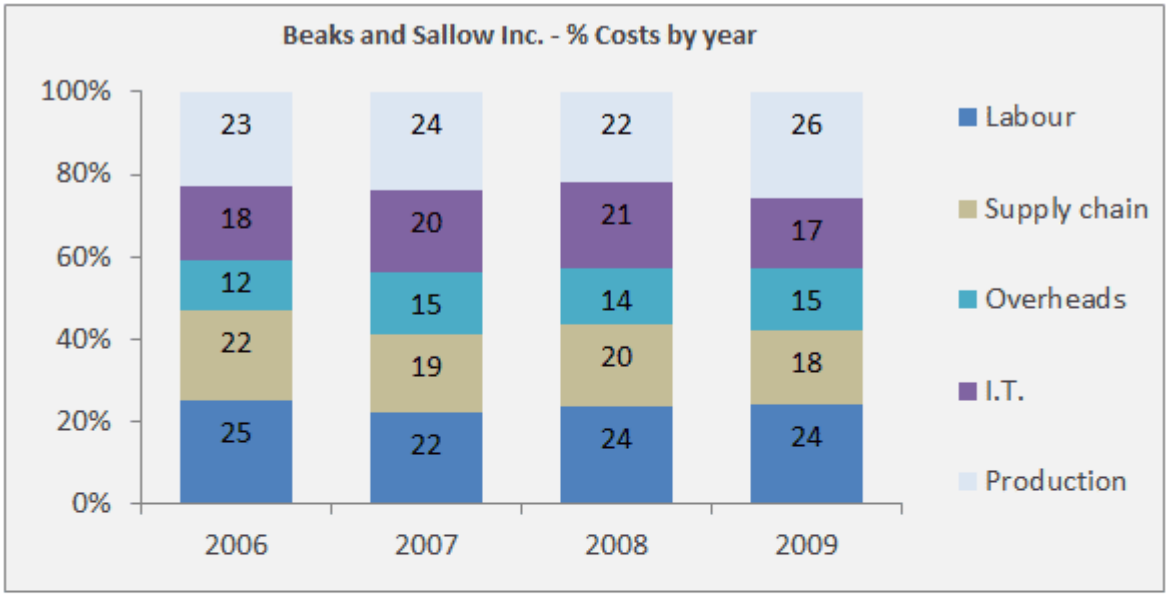
Overheads	104	105	102	101
Supply chain	186	174	162	166
Labour	248	245	319	265
I.T.	149	138	140	191
Production	227	253	291	287

Q22 Which cost or costs on their own represented more than 17% of the total costs in 2010?

(A) Labour and Production
(B) Supply chain and I.T.
(C) Labour and Supply chain
(D) Supply chain, Labour and Production
(E) Supply chain, Labour, Production and I.T.



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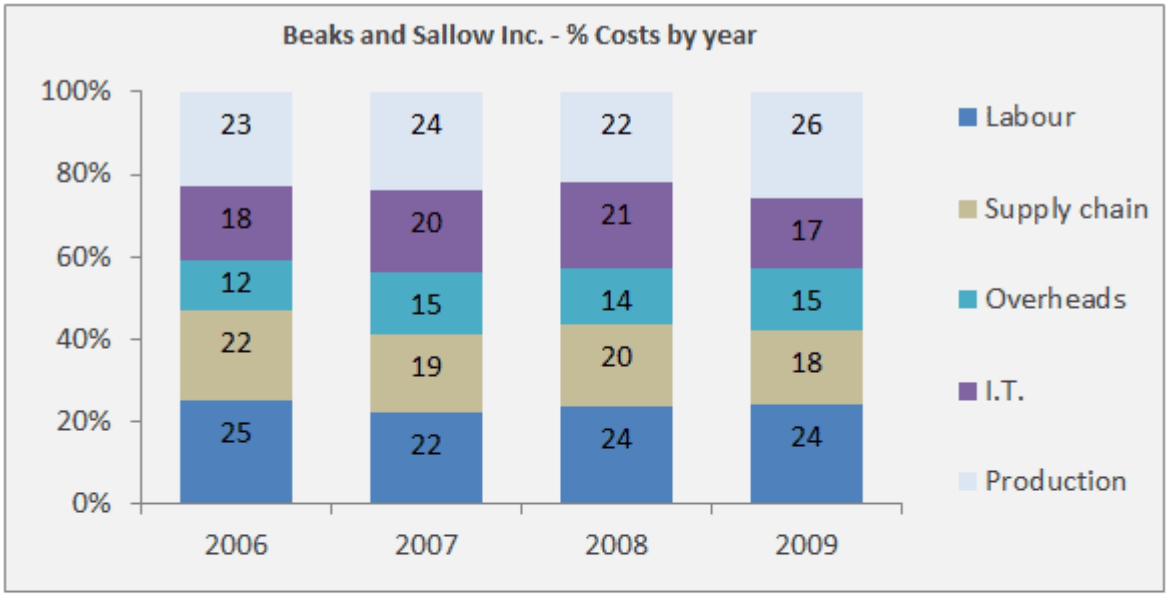
Overheads	104	105	102	101
Supply chain	186	174	162	166
Labour	248	245	319	265
I.T.	149	138	140	191
Production	227	253	291	287

Q23 In which of the years shown was there a 3:2 ratio of IT to Overheads costs?

(A) Cannot Say
(B) 2006 and 2007
(C) 2006, 2008 & 2010
(D) 2007, 2008 & 2010
(E) 2008 and 2009



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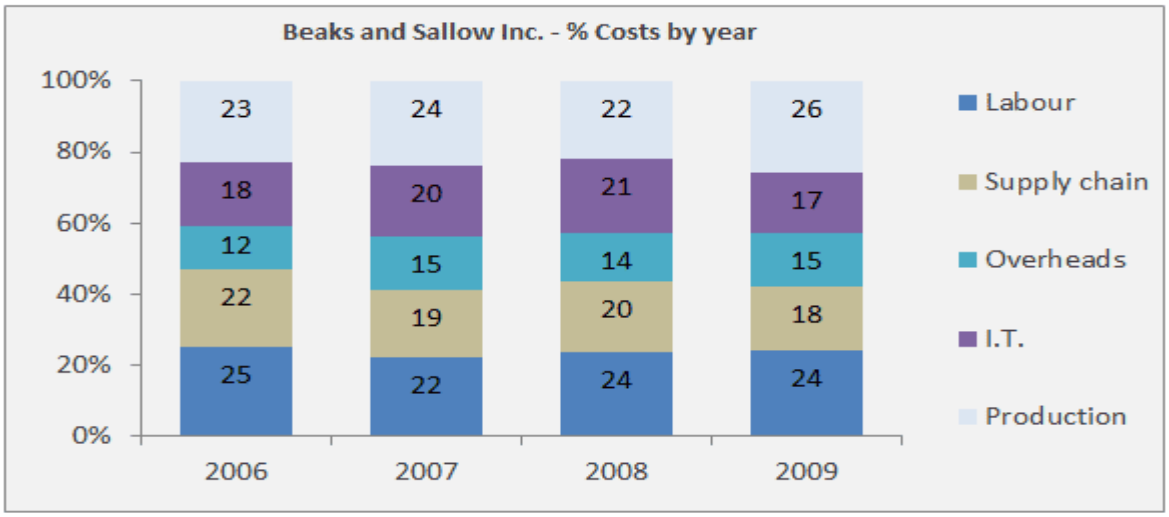
Overheads	104	105	102	101
Supply chain	186	174	162	166
Labour	248	245	319	265
I.T.	149	138	140	191
Production	227	253	291	287

Q24 If 2009's total costs were £250,000, what were the Production costs?

(A) £80,000
(B) £75,000
(C) £70,000
(D) £65,000
(E) £60,000



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Overheads	104	105	102	101
Supply chain	186	174	162	166
Labour	248	245	319	265
I.T.	149	138	140	191
Production	227	253	291	287

Q25 If the costs are put into order of decreasing size, in which two years is the order the same?

(A) 2006 and 2007
(B) 2006 and 2008
(C) 2006 and 2010
(D) 2007 and 2008
(E) 2007 and 2009

UK Tourist data				
Country of origin	Annual Number of Tourists (1000s)	Total Spending (million)	Average Family Length of Stay (days)	Average Family Spend (£ per day)
Australia	2,200	435	5.2	236
Spain	1,300	410	2.8	116
Germany	660	380	4.6	148
U.S.A.	830	350	6.2	244
Italy	550	283	3.8	164

Q26 On average, families from which country of origin spend the most during a typical stay?

(A) Australia
(B) Spain
(C) Germany
(D) U.S.A.
(E) Italy

UK Tourist data				
Country of origin	Annual Number of Tourists (1000s)	Total Spending (million)	Average Family Length of Stay (days)	Average Family Spend (£ per day)
Australia	2,200	435	5.2	236
Spain	1,300	410	2.8	116
Germany	660	380	4.6	148
U.S.A.	830	350	6.2	244
Italy	550	283	3.8	164

Q27 On average, families from which of the countries shown spend the most and the least per typical stay?

(A) Can't tell from the data
(B) U.S.A. (most); Italy (least)
(C) U.S.A. (most); Spain (least)
(D) Australia (most); Italy (least)
(E) Australia (most); Spain (least)

UK Tourist data				
Country of origin	Annual Number of Tourists (1000s)	Total Spending (million)	Average Family Length of Stay (days)	Average Family Spend (£ per day)
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U.S.A.	830	350	6.2	244
Italy	550	283	3.8	164

Q28 Which of the following statements is True?

(A) The ratio of German:Spanish tourists is 1:2
(B) There are fewer Spanish tourists than German and Italian tourists combined
(C) German families have the longest average length of stay
(D) Total German tourist spending is more than 92% of Total Spanish tourist spending
(E) There are over 4 times as many Australian tourists as Italian tourists

UK Tourist data				
Country of origin	Annual Number of Tourists (1000s)	Total Spending (million)	Average Family Length of Stay (days)	Average Family Spend (£ per day)
Australia	2,200	435	5.2	236
Spain	1,300	410	2.8	116
Germany	660	380	4.6	148
U.S.A.	830	350	6.2	244
Italy	550	283	3.8	164

Q29 On average which of the following tour parties would spend the most per day?

(A) 2 Australian families
(B) 2 Spanish families
(C) 3 German families
(D) 3 U.S.A. families
(E) 3 Italian families

UK Tourist data				
Country of origin	Annual Number of Tourists (1000s)	Total Spending (million)	Average Family Length of Stay (days)	Average Family Spend (£ per day)
Australia	2,200	435	5.2	236
Spain	1,300	410	2.8	116
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U.S.A.	830	350	6.2	244
Italy	550	283	3.8	164

Q30 Approximately, what's the average daily spend per family for the 5 countries of origin shown?

(A) £170
(B) £180
(C) £190
(D) £200
(E) Cannot tell from data

End of test