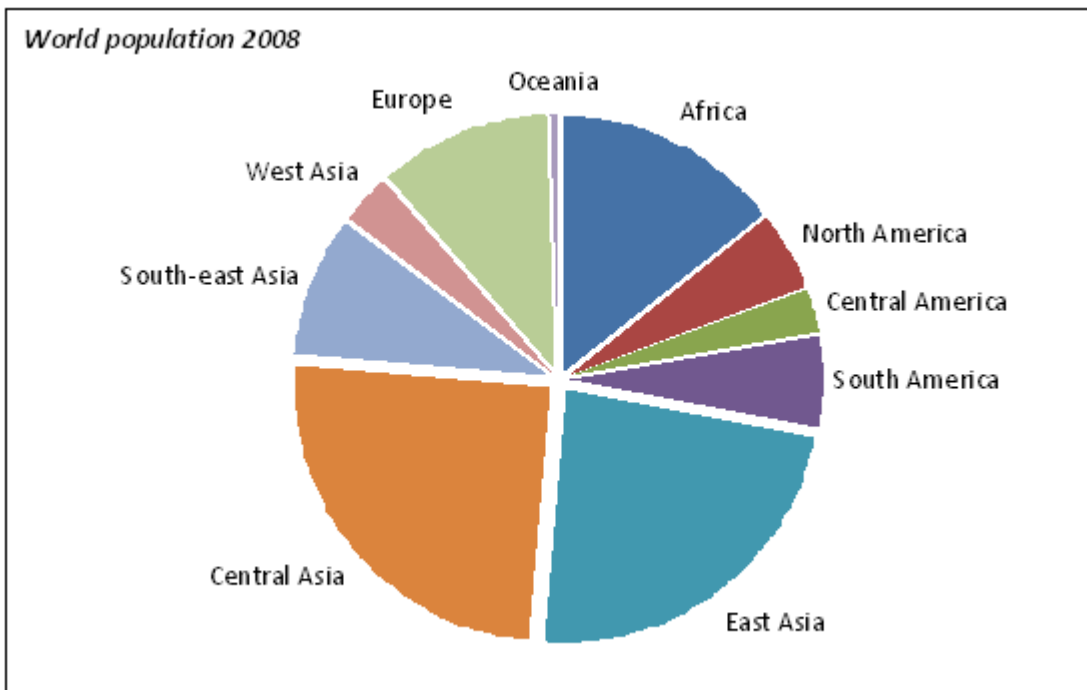Numerical Reasoning
Practice Test 8

Question Booklet

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 four 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. **When you are ready, begin the test.**

World population 2008

Q1 In which continent or subcontinent did approximately 23% of the world's population live in 2008?

Africa   America   Central Asia   East Asia

Q2 In 2008, approximately what fraction of the world's population lived in the Americas?
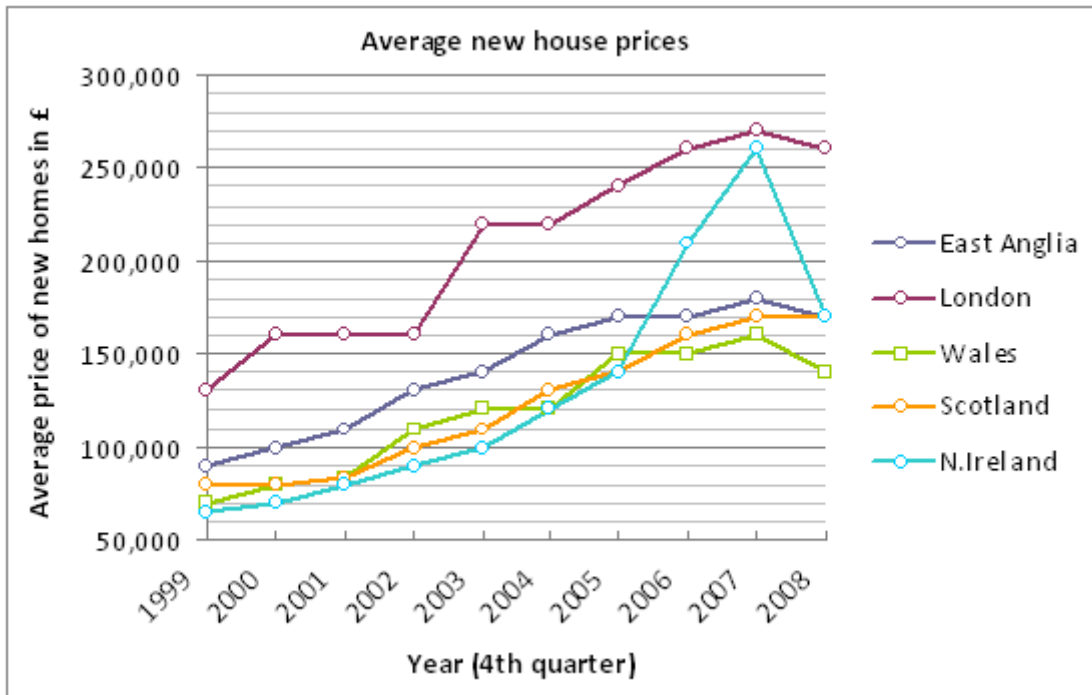
1/4   1/5   1/7   1/9

Q3 The total world population in 2008 was estimated to be 6,707 million. Approximately how many people lived in Europe?

560 million   745 million   932 million   1,179 million

Q4 The current population growth rate for Africa is estimated to be 2.4% per annum and the population of Africa in 2008 was estimated to be 967 million. If the current growth rate is maintained, in which year will the population of Africa exceed 1.1 billion?

2012   2013   2014   2015

Average new house prices

Q5 Which region has shown the greatest range in its average new house prices over the ten year period?
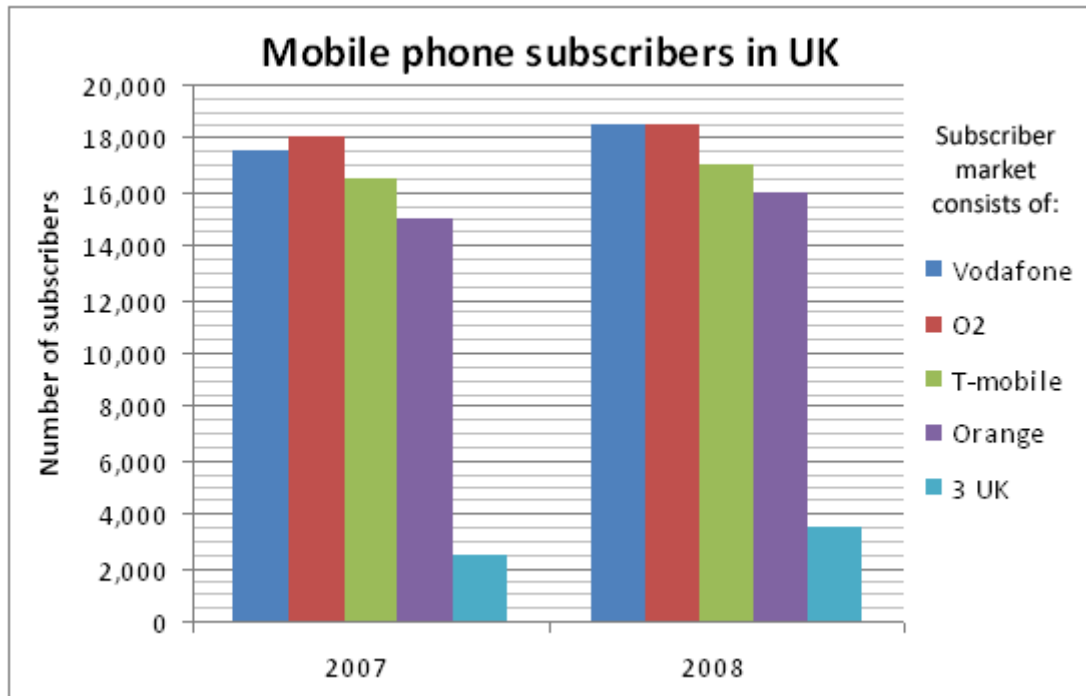
  London　　　　Wales　　　　Scotland　　　　N. Ireland

Q6 Which region has shown the least percentage increase in its average new house prices over the ten year period?

  East Anglia　　　　London　　　　Wales　　　　Scotland

Q7 If the average London house price continues to fall by the same percentage as it did between the last quarter of 2007 and the last quarter of 2008, in what year would the average house price in London revert to their 2003-2004 levels?

  2009　　　　2010　　　　2013　　　　2015

Mobile phone subscribers in UK

Subscriber market consists of:
- Vodafone
- O2
- T-mobile
- Orange
- 3 UK

Q8   Which provider showed the greatest percentage increase in subscribers between 2007 and 2008?

Vodafone   T-mobile   Orange   3 UK

Q9   Which provider maintained the same percentage of the subscriber market share for both 2007 and 2008?

Vodafone   O2   T-mobile   Orange   3 UK

Q10   If 3 UK continued to increase its share of the subscriber market by the same percentage growth as it did between 2007 and 2008, approximately how many more years (after 2008) would it take until it has more than a 20% share of the subscriber market?

3   4   5   6

Percent of each age group who participated in a particular activity

Age	16 - 19	20 - 24	25 - 29	30 - 44	45 - 59	60 - 69	70+	Total for Adult Sample Group
Walking	29	31	33	39	40	37	22	35
Swimming	19	17	17	20	13	7	3	14
Keep fit	15	16	19	16	11	7	4	12
Cycling	18	12	12	13	8	4	2	9
Jogging	11	9	11	8	3	1	0	5
Soccer	24	13	11	6	1	0	0	5
Other	44	34	32	23	14	7	2	19

Survey of the participation rates in a selection of sports, and physical activities. The survey was conducted on a sample of 14,800 adults aged 16 years and over in Great Britain in 2002 and shows the percentage of interviewees who participated in the sports or physical activities in the 4 weeks prior to being interviewed

Q11 How many of the interviewees played soccer in the four week period?

8,880   750   740   700

Q12 The number of people interviewed in the 16 – 19, 20 – 24 and 25 – 29 age ranges were 750, 1,250 and 1,000 respectively. How many interviewees under 30 years of age cycled during the four week period?
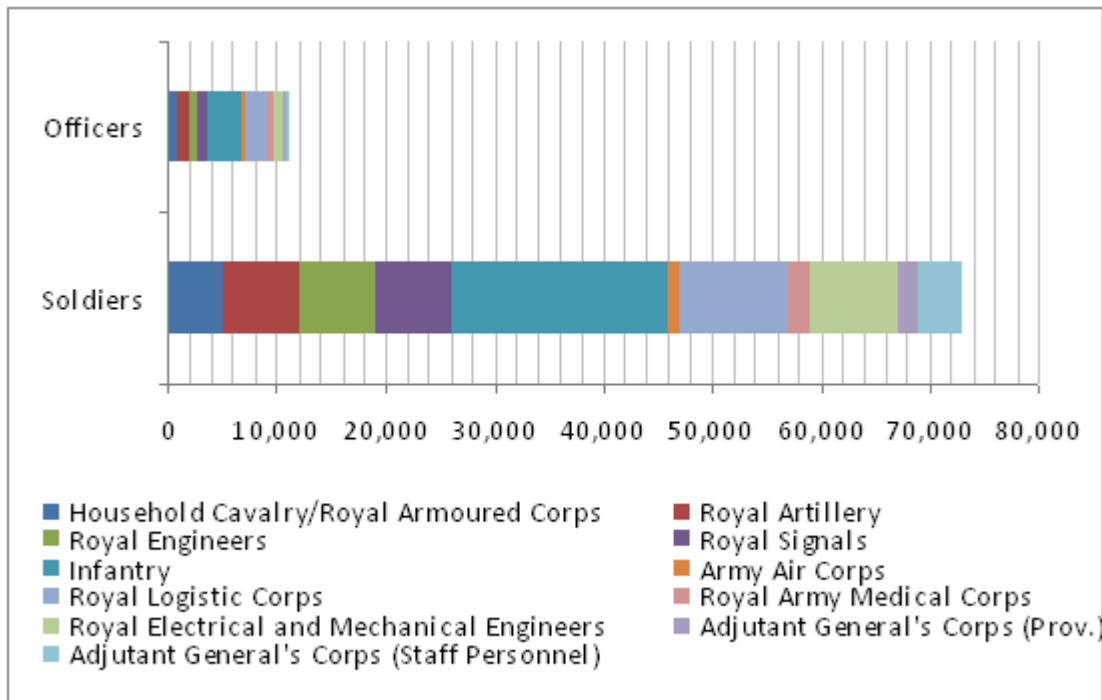
1,260   405   395   297

Q13 The number interviewed in the 30 - 44 age range was 3,800 in total. Of those, 5% said they participated in both walking and swimming during the four week period. How many interviewees in the 30 - 44 age range walked but did not swim?

190   570   722   1,292

Q14 The number interviewed in the 70+ age range was 360. None of the interviewees in this age range participated in more than one activity during the four week period. How many of them did not participate in any activity at all?

119   231   238   241

Q15 Approximately what percentage of personnel were in the Infantry?

10%   20%   30%   40%

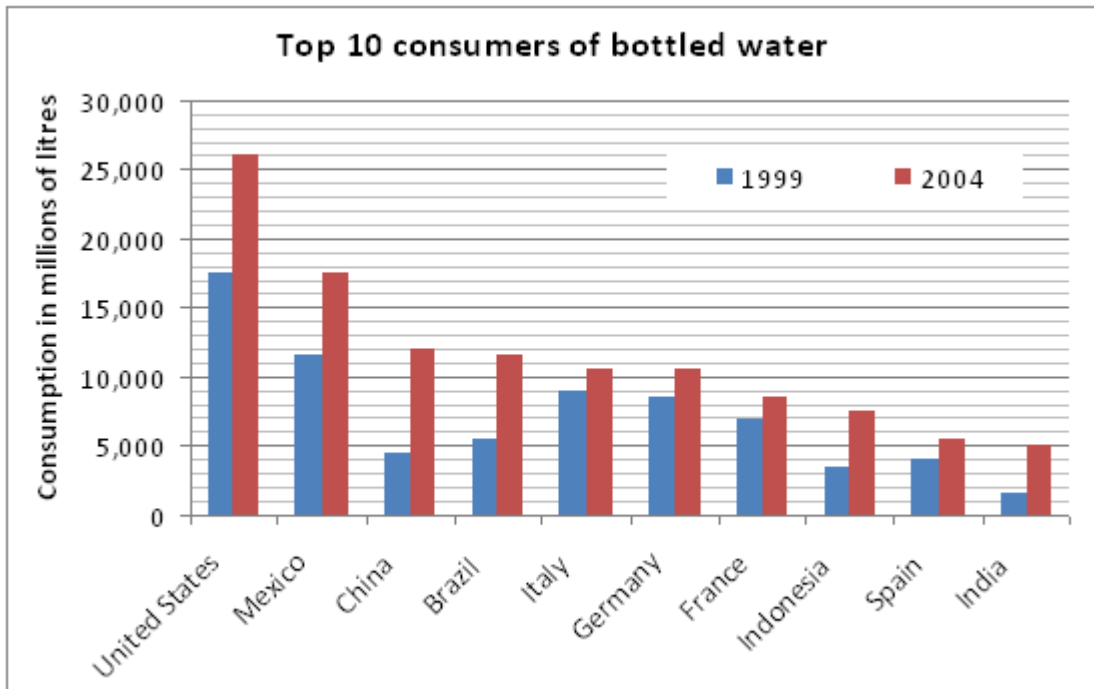**Q16** Which of the following divisions had the highest ratio of officers to soldiers?

Royal Army Medical Corps

Household Cavalry/Royal Armoured Corps

Infantry

Adjutant General's Corps (Provost)

Q17 The total number of new trained soldiers was 20,964. Assuming each division has an equal percentage of new recruits, approximately how many of these soldiers would have been in the Royal Logistics Corps?

2,900   3,400   4,400   5,400

Q18 The total strength of the British soldiers 100 years ago was 372,000. By what percentage has the number of soldiers shrunk over the last 100 years?

19%   67%   73%   80%

Top 10 consumers of bottled water

Q19 Which country showed the greatest percentage increase in the consumption of bottled water between 1999 and 2004?
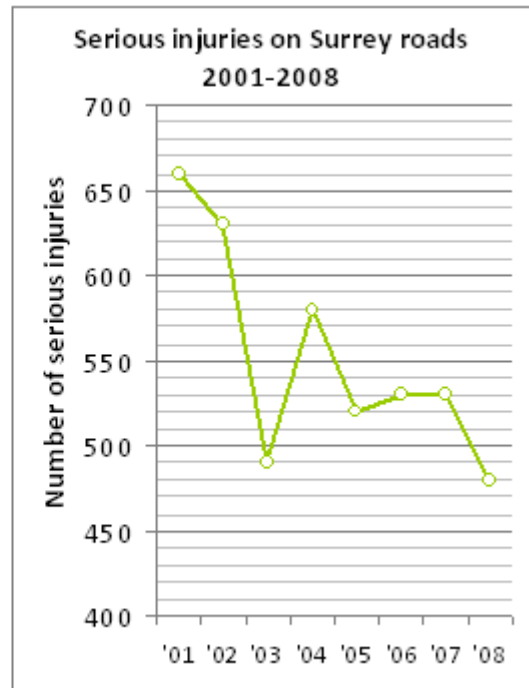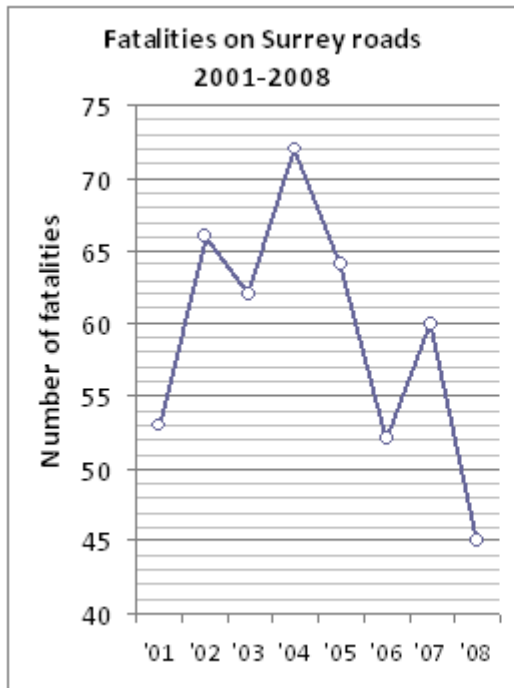
Brazil   India   China   Indonesia

Q20 Assuming the consumption in the United States increased by the same percentage each year over the five year period, what was the annual percentage increase?

8.24%   8.67%   8.91%   9.52%

Q21 In Spain the consumption of bottled water continued to rise by 6% per annum for the next two years (2005 and 2006), but then the consumption in 2007 declined by 4% on the 2006 levels. What was the consumption (in millions of litres) in 2007?

6,427   6,083   5,933   5,606

Fatalities on Surrey roads 2001-2008 / Serious injuries on Surrey roads 2001-2008

Q22   In which year was the combined number of fatalities and serious injuries greatest?

   2001   2002   2004   2005

Q23   Which year showed the greatest decrease in the number of serious injuries over the previous year?

   2003   2004   2005   2006

Q24   What is the average (mean) number of fatalities over the eight years?

   58   59.25   60.5   61

	Size			
	250 ml	300 ml	400 ml	500 ml
Brand A	£2.19			
Brand A			£3.26	
Brand B	£2.11			
Brand B			£3.16	
Brand C	£2.43			
Brand C			£2.97	
Brand D	£2.34			
Brand D				£4.49
Brand E		£2.12		

Prices of five brands of shampoo in a national supermarket.

Q25 Which size of which brand gives the best value in terms of quantity per cost?

400 ml of Brand B	400ml of Brand C
500ml of Brand D	300ml of Brand E

Q26 A customer needs to buy at least 500 ml of each brand. What is the minimum amount they will need to spend at this supermarket?

| £25.07 | £23.89 | £22.19 | £18.12 |

Q27 The supermarket increases the cost of Brand E by 19%. How many 300ml bottles of Brand E could then be bought with GBP 20?

| 9 | 8 | 7 | 6 |

	1980	1990	2000
Africa	650	600	550
Asia	311	275	239
The Americas	923	839	756
World total	1884	1714	1545

Area of Rainforests in millions of hectares in three continents and worldwide over the twenty year period 1980 to 2000.

Q28 By what percentage did the area of rainforests in The Americas decrease over the twenty year period?

15%   18%   20%   22%

Q29 In which continent and during which 10 year period was there the sharpest percentage decline in the area of rainforests?

Asia 1980-1990   Asia 1990-2000

The Americas 1980-1990   The Americas 1990-2000

Q30 The area of global rainforest is being depleted by 1% per year. If this rate continued from 2000 onwards, what will be the total area (in millions of hectares) of world rainforest in 2020?

1,056   1,236   1,251   1,264