



Free-Standing Mathematics Qualification
Advanced Level
June 2010

Using and Applying Statistics

6990/2PM

Unit 10

Preliminary Material

Data Sheet

To be opened and issued to candidates between
Friday 7 May 2010 and Friday 14 May 2010

REMINDER TO CANDIDATES

YOU MUST **NOT** BRING THIS DATA SHEET
WITH YOU WHEN YOU SIT THE EXAMINATION.
A CLEAN COPY WILL BE MADE AVAILABLE.

Population

The table shows the population of some European countries on 1st January 2007 and 2008.

Country	2007	2008
Belgium	10 584 534	10 666 866
Germany	82 314 906	82 221 808
Ireland	4 312 526	4 419 859
Greece	11 171 740	11 214 992
Spain	44 474 631	45 283 259
France	63 392 140	63 753 140
Italy	59 131 287	59 618 114
Netherlands	16 357 992	16 404 282
Austria	8 298 923	8 331 930
Poland	38 125 479	38 115 641
Portugal	10 599 095	10 617 575
Finland	5 276 955	5 300 484
Sweden	9 113 257	9 182 927
United Kingdom	60 816 701	61 185 981

Couriers

According to the FedEx Express website:

‘FedEx Express is the world’s largest express transportation company, providing fast and reliable delivery to more than 220 countries and territories. We use a global air-and-ground network to speed delivery of time-sensitive shipments, by a definite time and date with a money-back guarantee.

All our couriers work daily to make sure that every FedEx experience is outstanding. Our culture has repeatedly been recognized, making FedEx one of the best companies to work for in the world.

- Overall mileage covered (on the ground) by FedEx Express in 2007 – 3,477,728
- Average mileage covered by a courier per year – 12,541’

Rainfall

August is statistically the second hottest month of the year, just behind July. Curiously though, the really mega-hot days have all been in August (the three hottest days of the century being in 1911, 1932 and, most recently and notably, 1990). August contains the hottest day of the year about 23% of the time (slightly less than June). The hours of daylight are noticeably shorter in August. There was a run of pretty dismal Augusts from 1960–1974. In 1992, England and Wales had their wettest August since 1956, and Scotland since 1985. A monthly total of 259 mm of rain was recorded in Benbecula (Outer Hebrides) – 312% of normal, and caused by frontal rain (rather than thunderstorms). There were gales on the Bank Holiday.

August monthly rainfall (mm) in the UK from 1979 to 2008

Year	Rainfall	Year	Rainfall	Year	Rainfall
1979	103.4	1989	98.4	1999	89.4
1980	100.0	1990	70.6	2000	82.5
1981	44.8	1991	42.0	2001	96.7
1982	106.2	1992	157.0	2002	73.8
1983	37.2	1993	60.2	2003	27.0
1984	54.8	1994	79.7	2004	159.5
1985	152.5	1995	17.8	2005	85.2
1986	116.3	1996	76.4	2006	92.3
1987	84.3	1997	81.4	2007	86.2
1988	112.7	1998	76.6	2008	139.8

2007 monthly rainfall (mm) from four weather stations in the UK

Month	Durham	Valley	Eastbourne	Armagh
January	56.2	88.8	74.2	78.2
February	70.0	39.6	111.1	44.7
March	20.8	41.0	47.2	66.8
April	11.4	13.8	1.6	16.1
May	50.0	44.2	98.5	49.8
June	118.8	78.4	68.9	135.3
July	100.2	101.9	98.4	131.0
August	30.6	59.4	27.6	109.8
September	39.4	84.6	17.7	25.8
October	13.0	35.4	45.9	25.8
November	61.2	89.8	68.4	58.5
December	52.6	96.8	70.4	80.6

Turn over

Turn over ►

Heights

The stem and leaf plot of the heights of students below was taken from the 2006 Census At School Random Sampler. The sample consists of 100 male and female students, at all year levels and is taken from across Australia.

This is a random sample and variation will occur between samples. You can expect each random sample taken from the data to be different from any other sample.

Key 18 | 9 represents 189 cm

What is your height? (cm)

Stem	Leaf
7	3
8	
9	
10	
11	
12	
13	
14	0,3,4,4,6,7,9
15	0,0,1,2,2,2,2,3,4,4,4,4,4,5,5,5,5,6,6,6,7,7,7,8,9
16	0,0,0,0,0,0,1,1,1,1,1,1,2,2,3,4,4,5,5,5,5,5,5,6,6,6,6,7,7,7,8,9,9,9,9,9,9,9
17	0,0,0,0,0,0,1,1,2,2,3,3,5,5,6,8
18	0,0,0,0,0,1,2,3,4,4,9

In the UK, you can apply to become a Police Officer whatever your height as there are no longer any height restrictions for women or men.

The United States Army requires that women's heights be between 58 and 80 inches.

END OF DATA SHEET

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Population: Eurostat © European Communities, 1998–2010.

Couriers: www.fedex.com

Rainfall: Professor Trevor Harley, Head of Psychology, University of Dundee. © Crown Copyright 1979–2008, the Met Office.

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