

Free-Standing Mathematics Qualification  
June 2006  
Advanced Level



**USING AND APPLYING STATISTICS**  
**Unit 10**

**6990/2PM**

**PRELIMINARY MATERIAL**

**DATA SHEET**

**To be issued to candidates between Friday 5 May and Friday 12 May 2006**

**REMINDER TO CANDIDATES**

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

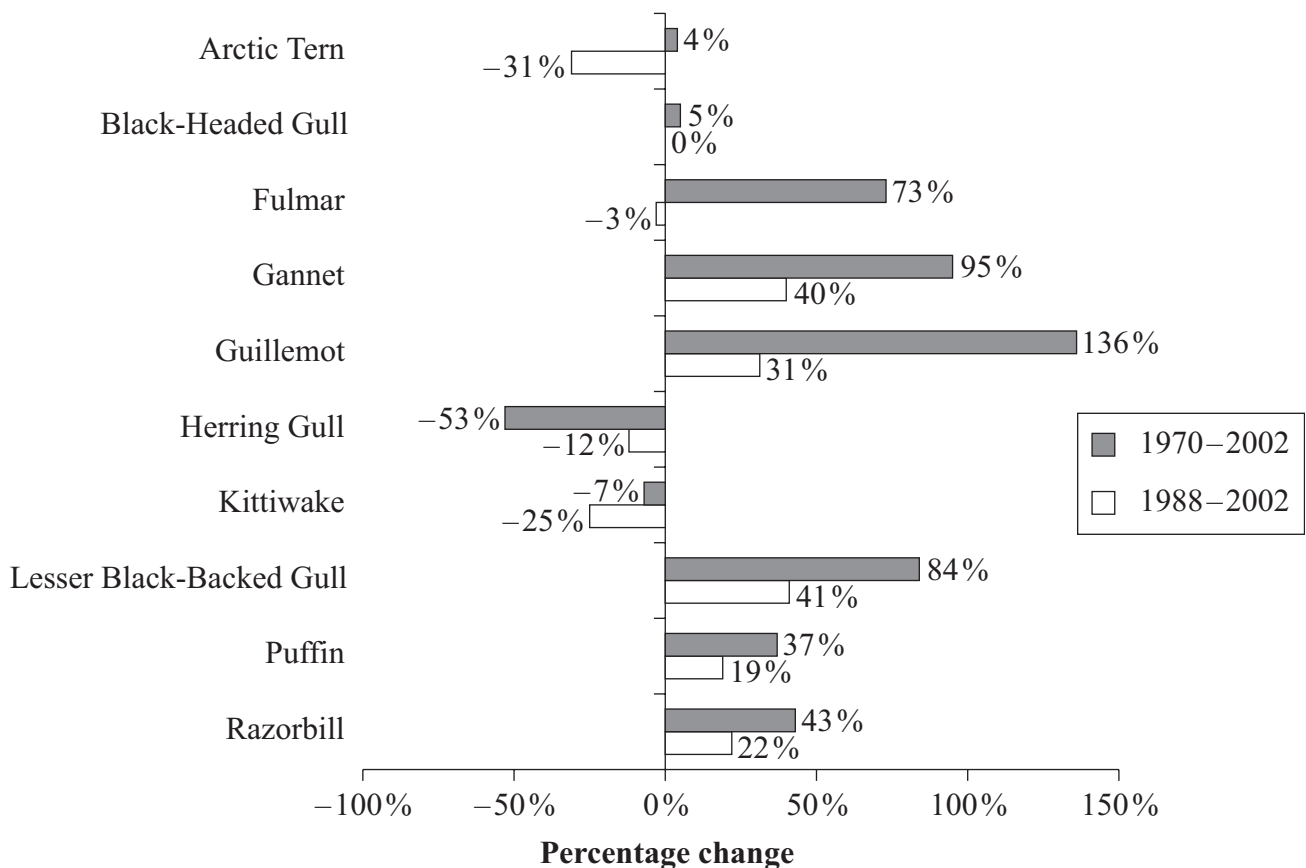
## Birds

The table below gives information about the twelve most common garden birds in the UK.

	Number of eggs	Incubation (days)	Fledging (days)	Maximum lifespan (years)	Length (cm)	Wingspan (cm)	Weight (g)
Blackbird	4	13	14	20	25	36	103
Blue Tit	10	14	19	21	11	19	11
Chaffinch	5	13	14	14	14	27	24
Collared Dove	2	16	17	16	32	51	205
Dunnock	5	13	12	9	14	20	21
Great Tit	9	14	19	15	14	24	18
Greenfinch	5	13	16	12	15	26	89
House Sparrow	4	13	15	12	15	23	31
Magpie	6	22	27	21	45	56	225
Robin	5	14	14	8	14	21	18
Starling	6	13	21	22	21	40	75
Woodpigeon	2	17	34	14	41	78	449

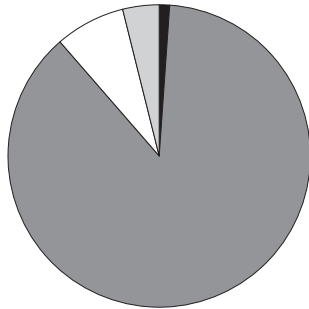
The chart below shows the percentage changes in the numbers of the most common seabirds in the UK between 1970 and 2002 and between 1988 and 2002.

**Changes in the numbers of breeding seabirds in the UK**

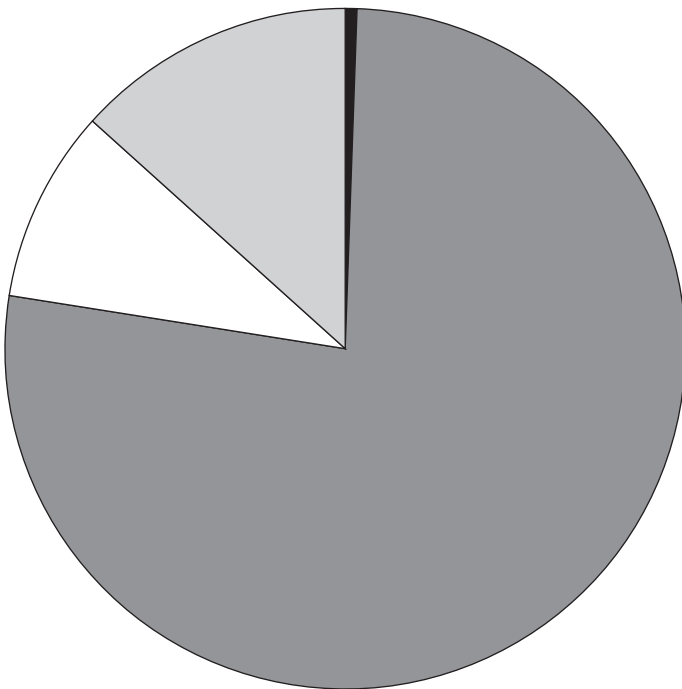


**Road traffic statistics**

The Department of Transport collects a lot of data from different types of road in Great Britain. Comparative pie charts are shown below.

**Vehicles observed on urban roads (speed limits of 30 mph and 40 mph)**

■	Motorcycles	4°
■	Cars	315°
□	Light goods, buses & coaches	27°
■	HGVs	14°

**Vehicles observed on motorways (speed limit 70 mph)**

■	Motorcycles	2°
■	Cars	277°
□	Light goods, buses & coaches	33°
■	HGVs	48°

[The total numbers of vehicles observed on urban roads and motorways are proportional to the areas of the pie charts above.]

**Turn over ►**

**Height**

Random samples of 1000 girls and 1000 boys were taken from each age group in a city.

The table below shows the results for 11-, 12- and 13-year-olds.

<b>Age</b>	<b>11 years</b>		<b>12 years</b>		<b>13 years</b>	
<b>Height (cm)</b>	<b>Girls</b>	<b>Boys</b>	<b>Girls</b>	<b>Boys</b>	<b>Girls</b>	<b>Boys</b>
$90 < x \leq 110$	2	3	2	1	2	1
$110 < x \leq 120$	3	2	5	3	1	1
$120 < x \leq 130$	16	19	7	11	6	7
$130 < x \leq 140$	137	147	39	48	14	27
$140 < x \leq 150$	434	469	251	295	108	130
$150 < x \leq 160$	330	305	487	437	438	350
$160 < x \leq 170$	71	49	187	175	374	334
$170 < x \leq 180$	6	4	17	27	54	133
$180 < x \leq 200$	1	2	5	3	3	17

**END OF DATA SHEET**

## ACKNOWLEDGEMENT OF COPYRIGHT-HOLDERS AND PUBLISHERS

Birds table: Information courtesy of the RSPB

Birds Chart: Joint Nature Conservation Committee, [www.jncc.gov.uk](http://www.jncc.gov.uk) from Mitchell, Newton, Ratcliffe & Dunn, *Seabird Populations of Britain & Ireland*, 2004 T & AD Poyser, an imprint of A & C Black Publishers Ltd.

Road Traffic Statistics: DEPARTMENT FOR TRANSPORT, [www.dft.gov.uk](http://www.dft.gov.uk)

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