MARGIN

11. Perfect Eyes is an optician that has branches throughout Scotland. It uses a relational database consisting of three linked tables to store data about customers, opticians and specialist referrals.

Extracts from the three tables are shown below.

Customer						
customerID	**opticianID**	**forename**	**surname**	**loyaltyPoints**	**address**	**town**
AW3212	KM101	Amy	Wilson	24	8 Pelken Road	Paisley
JP2323	CS878	Joyce	Peden	47	42 Bewston Road	Ayr
JS9767	KM101	Julia	Smith	77	32 Bracken Road	Paisley
KC1123	MS221	Katy	Carenduff	11	12 Main Street	Melrose
LL3234	CS878	Robin	Li	51	21 Manse Court	Largs
MR8766	JS232	Margaret	Rennie	73	63 Royal Crescent	Dalry
SR7123	CS878	Steven	Rycroft	50	22 Markston Place	Ayr
…	…	…	…	…	…	…

Optician			
opticianID	**opticianName**	**opticianAddress**	**opticianTown**
KM101	Mr K Madhok	South Road	Paisley
KM321	Mr M Ali	Main Road	Troon
MS221	Mrs M Saunders	St Dunstan's Park	Melrose
…	…	…	…

Referral			
referralID	**customerID**	**referralDate**	**specialist**
P12121	AW3212	12/02/2022	Gerard McGowan Eye Clinic
H92743	HS3433	14/02/2022	JK Optometrist
CXR222	JP2323	28/04/2022	Eye Clinic at Newmains
U32349	JS9767	26/04/2022	Gerard McGowan Eye Clinic
…	…	…	…

11. (continued)

A query is required to list customers who were referred in April 2022 to any specialist that includes 'Eye Clinic' in its name. The list should be displayed with the most recent referral date first, as shown below.

forename	**surname**	**referralDate**	**specialist**
Joyce	Peden	28/04/2022	Eye Clinic at Newmains
Julia	Smith	26/04/2022	Gerard McGowan Eye Clinic
Margaret	Rennie	01/04/2022	University Hospital Eye Clinic

(a) Complete the design of a query to produce this output. **3**

Field(s) and calculation(s)	forename, surname, referralDate, specialist
Tables(s)	
Search criteria	
Grouping	
Sort order	referralDate DESC

[Turn over

11. (continued)

(b) Perfect Eyes wants to know which customers have more than the average loyalty points.

(i) Write the SQL statement to display the average loyalty points of the customers, as shown below. **2**

Average Points
38.4

(ii) The query from part (i) is saved as 'AvgPointsQuery'. Using this query, complete the SQL statement to display the customers who have more than the average loyalty points, in order from highest to lowest as shown below. **4**

forename	surname	loyaltyPoints	opticianName
Julia	Smith	77	Mr K Madhok
Margaret	Rennie	73	Mr M Ali
Robin	Li	51	Miss C Srigor
Steven	Rycroft	50	Miss C Srigor
…	…	…	…

```
SELECT forename, surname, loyaltyPoints, opticianName
```