## Section A

Answer **all** questions in this section.

A high street bank in 'Davidstown' is called the DV bank. The bank has a logo and signboard that is made up from geometrical shapes as shown in the drawing below.



Complete the full size view of the logo started on the right by drawing:

- (a) the remaining sides of the equilateral triangle 90 side; [2]
- (b) the regular hexagon 45 side;
- (c) the semi-circle and vertical line that represents the reversed letter D. [2]
- (a) Complete the signboard for DV BANK by adding the **two** missing letters. All the letters must be to the same height and style as those given. [4]
- (b) Complete the quadrilateral border to the sign board so that the shape is symmetrical. [2]





0445/21 © UCLES 2012	Oct/Nov 2012	1 hour			
Centre Number			Candidate's Number	Candidate's Surname	Other Names

[5]



**A3** A savings box for young investors of the DV bank is shown in orthographic views below.

Lines are printed on the box to highlight the shapes **G** and **V**.





- (a) In the space to the right, draw a full size isometric view of the savings box. [8]
- (b) Add to your isometric drawing the printed-on line that highlights the letter V. [1]
- (c) Draw the  $30 \times 5$  coin slot on the correct face of your isometric savings box. [1]



## Section B

Answer either question B4 or B5.

**B4** The DV bank has sponsored a school football team. The logo shown below needs to be enlarged by a ratio of 2:1 and printed onto the front of the team shirt shown to the right.

Use a suitable graphical method to transfer the logo to the team shirt.

The triangle representing the lower body and the circle representing the football, have been drawn for you. [25]

Estimate the gap between the geometrical shapes



team shirt

0445/21 © UCLES 2012	Oct/Nov 2012	1 hour			
Centre Number			Candidate's Number	Candidate's Surname	Other Names

logo



**B5** The transactions at the DV bank on a busy day are listed below.

Cash withdrawals	\$12000
Deposits from small businesses	\$9000
Savings from individuals	\$6000
Payment of Bills	\$3000
Investments bonds	\$4500
Foreign exchange	\$1500

(a)	In the space below, draw and label a pie chart to show the relative size	e of
	each type of transaction on this busy day.	[7]

The chart shows the number of customers who visited the DV bank over the busiest week that the bank was open in 2011.

(b)	In the space below, draw a suitable two-dimension	nal
	bar chart to show the TOTAL number of customers	for
	each of the five days of the busiest week.	[3]

Day of the week	Monday	Tuesday	Wednesday	Thursday	Friday
Individual customers	800	850	550	650	950
Business customers	750	500	450	500	850
TOTAL	1550	1350	1000	1150	1800

(c) In the space below, draw a three-dimensional bar chart to show the numbers of each type of customer over the five days of the busiest week.
[15]

1.000

unos approved and the second