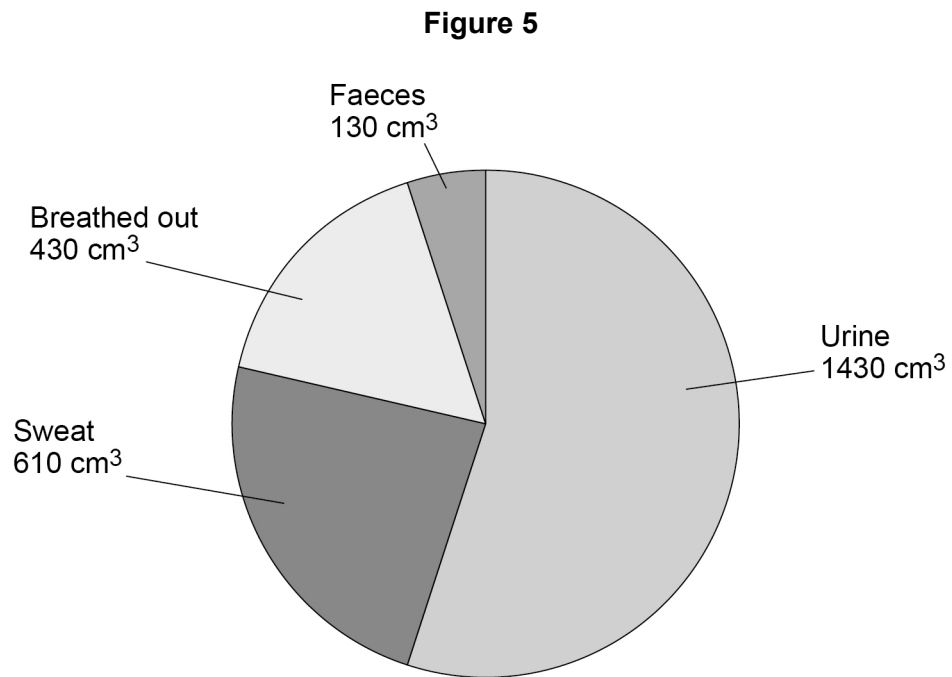


0 4

Figure 5 shows the water loss from a person on one day.



0 4 . 1

The total water loss was 2600 cm³.

Calculate the percentage of the total water loss that was lost as urine.

[2 marks]

Percentage lost as urine = _____ %



A marathon race is 42 km long.

0 4 . 2 What happens to the volume of water lost as sweat when a person runs a marathon? **[1 mark]**

0 4 . 3 What must marathon runners do to prevent themselves becoming dehydrated? **[1 mark]**

0 4 . 4 Complete the sentences. **[3 marks]**

Choose answers from the box.

digestion

excretion

fertilisation

filtration

reabsorption

Blood entering the kidneys goes through the process of

Glucose is **not** found in urine because of _____.

Urine is removed from the body in the process of _____.

Question 4 continues on the next page

Turn over ►



Question	Answers	Extra information	Mark	AO / Spec. Ref.
04.1	$\frac{1430}{2600} \times 100$		1	AO2 4.5.1 4.5.3.3
	55 (%)		1	
04.2	(volume) increases	allow (volume) goes up	1	AO2 4.5.1 4.5.2.4 4.5.3.3
04.3	drink (a lot / more)		1	AO2 4.5.1 4.5.3.3
04.4	filtration	this order only	1	AO1 4.5.3.3
	reabsorption		1	
	excretion		1	

Question	Answers	Mark	AO / Spec. Ref.
04.5	Level 2: Scientifically relevant facts, events or processes are identified and given in detail to form an accurate account.	3–4	AO3 4.5.3.3
	Level 1: Facts, events or processes are identified and simply stated but their relevance is not clear.	1–2	
	No relevant content	0	
	Indicative content Advantages of kidney transplant <ul style="list-style-type: none"> • no need for regular / long hospital visits or is a long-term solution • flexible lifestyle, such as can go on holidays • may not live near a hospital or reference to transport costs • no risk of infection from frequent needles / treatment • less / no need to control diet • maintains correct concentration of substances in blood / body • cheaper long term for NHS / hospital Disadvantages of kidney transplant <ul style="list-style-type: none"> • may be rejected • have to keep taking anti-rejection drugs or immunosuppressants • (suitable) donor may not be available or need for tissue matching • risk from surgery (e.g. anaesthesia or infection) • recovery from surgery will take a long time • does not last forever (therefore further surgery needed) For Level 2, answers must refer to both advantages and disadvantages		
Total			11