

## UCAT DECISION MAKING <br> QUESTION PACK 1 <br> (MARK SCHEME)

1. (DMSR0011)

Answer: (E) 8th
2. (DMFR0018)

Answer: (C) C
3. (DMEA0005)

Answer: (A) Yes. Although it may not necessarily increase their happiness, human beings have a right to the truth surrounding their identity and origin.

## Explanation:

A is the strongest argument because it makes the case for the human right to truth but also acknowledges that such information will not necessarily make the person happier.
$B$ is not the strongest argument because it is working off of the assumption that everyone who donates their gametes is simply doing so because of a financial incentive which may not necessarily be the case.
C is not the strongest argument because the right to truth for the donation-conceived child surrounding their origin is greater than the need to placate the non-biological parents.
$D$ is not the strongest argument because nowhere does it state that the children conceived of donated gametes necessarily have a right to such financial or emotional assistance from the donors.
4. (DMDR0034)

Answer: (A) YES (B) YES (C) YES (D) NO (D) NO
5. (DMSR0019)

Answer: (A) 22
Explanation:
$59-5=54.54 / 2=27$ so there are 27 females and 32 males. $27-5$ is 22 so there are 22 female seniors.

## 6. (DMFR0015)

Answer: (C) Mr Maguire is fifth in the list.

## Explanation:

C cannot be true because Mr Maguire is just behind Mr Bale who must be in second and so he must be third. 1. James, Bale, and Maguire must be in that order but we cannot say where. 2. Mr Dybala is in fourth which means that James, Bale and Maguire must be first, second, and third. 3. This means that Fernando is in fifth.
7. (DMSR0012)

Answer: (C) All of the boys used the all-inclusive restaurant.
8. (DMFR0006)

Answer: (C). 21 pairs.

## Explanation:

Total number of individuals in the pentagon $=42.42 / 2=21$.
9. (DMSR0006)

Answer: (B)

## Explanation:

A: Not true because in 2014 Wendy was 75 and Harriet was 79 (Lola's age in 2015-1 year - 1 year: 81-1-1 = 79).
B: True because when Lola joined in 2017, Harriet had already been there for 4 years so she joined in 2013. If Lola was 81 in 2015, Harriet was 80 . Two years before that, in 2013, she must have been 78.
C: Not necessarily true because although James only joined in 2017, nowhere does it state what age he was when he did join.
D: Not necessarily true because Lola joined sometime in 2017. Wendy joined between 2014 and when James joined 2017. It is more likely that Wendy joined before Lola did.
10. (DMEA0003)

Answer: (C) No. The study only stated that veganism is associated with lower rates of cancer, and this association could be due to other lifestyle factors associated with a vegan diet.

## Explanation:

A is not the strongest argument because it is only referring to smoked foods and gastric cancer. One cannot extrapolate from smoked fish and meats to all animal based products, just as one cannot extrapolate from gastric cancer to all types of cancer.
$B$ is not the strongest argument because while it is true that a diet high in fresh fruits and vegetables and therefore anti-oxidants can be somewhat protective against cancer, a vegan diet does not necessarily mean that an individual will be eating lots of fruits and vegetables. C is the strongest argument because it points towards the fact that association is not the same as causation and states that other factors may be at work.
$D$ is not the strongest argument because at age 40 it is not too late to modulate one's protective and risk factors for getting cancer.
11. (DMDR0038)

Answer: (A) YES (B) NO (C) NO (D) YES

## 12. (DMEA0008)

Answer: (B) Yes. While it is possible to develop new habits as an adult, learning them at a younger age means that they are more likely to stick.

## Explanation:

A) This is not the strongest argument because it discusses employment and not the development healthy lifestyles which is what the question pertains to.
B) This is the strongest argument because it directly addresses the impact of learning habits at a younger age with regards to developing healthy lifestyles.
C) This is not the strongest argument because it addresses the issue of academics when the discussion was pertaining to the development of healthy habits.
D) This is not the strongest argument because it addresses the issue of short term financial burden, and not the long-term where a healthier population reduces the financial burden on government health services.
13. (DMFR0011)

Answer: (B) Beatrice - Brunette

## Explanation:

From the pieces of information we can gather, in order, that:
Beatrice is either in seat number 2 or seat number 3 .
Jessica is in seat number 4 which means that Beatrice must be in seat number 2 .
Seats 1/4: blonde/red. Seats 2/3: grey/brunette.
Sandra is grey - therefore she is in seat number 2 or 3 . Beatrice is in 2 so Sandra must be in 3 .
Grace must be in seat number 1 so she is either blonde or red-haired.
The woman in seat number 2 is brunette and we have established that Beatrice is in seat number 2 - this is the only combination which MUST be true.
Seat Number 1 = Grace, Blonde. Seat Number 2 = Beatrice, Brunette. Seat Number 3 = Sandra, Grey. Seat Number 4 = Jessica, Red.
14. (DMEA0013)

Answer: (A) Yes, a study in Malta which has fines of up to $€ 2000$ (around 50 times the current UK fine) showed a reduction in littering by greater than $50 \%$.

Explanation:
It addresses both aspects of the question and also provides evidence to back it up.
15. (DMDR0012)

Answer: (A) NO (B) YES (C) NO (D) YES (E) NO
16. (DMFR0016)

Answer: (C) Jamie came fourth.

## Explanation:

From the first line we can tell that Sam is in last with Harri two places ahead in third.

| Position | Name |
| :--- | :--- |
| 1 |  |
| 2 | Harri |
| 3 |  |
| 4 | Sam |
| 5 |  |

From the next line, we can tell that Nathan and Piri are in first/second as these are the only consecutive places and they were split by a photo finish.This leaves only fourth as the only remaining place so Jamie must have come in fourth.

| Position | Name |
| :--- | :--- |
| 1 | Nathan/Piri |
| 2 | Nathan/Piri |
| 3 | Harri |
| 4 | Jamie |
| 5 | Sam |


17. (DMDR0043)

Answer: (A) YES - 2 people minimum like brown sauce and only one dislikes ketchup so at least one person likes both.
(B) YES - We are told that everyone bar Yewande likes ketchup.
(C) NO - We are not told about her like or dislike for brown sauce.
(D) YES - Yewande dislikes ketchup.
18. (DMDR0021)

Answer: (A) YES (B) YES (C) NO (D) NO (E) NO
19. (DMSR0016)

Answer: (C)
Explanation: 1. Car A, 2. Car E, 3. Car H, 4. Car F/G, 5. Car F/G, 6. Car B, 7. Car D, 8. Car C
20. (DMEA0017)

Answer: (C)
21. (DMDR0025)

Answer: (D) Tim drew the octopus.
22. (DMFR0025)

Answer: (D) 45
Explanation:


23. (DMDR0024)
Answer: (A) YES
(B) NO
(C) NO
(D) YES (E) YES
24. (DMFR0020)

Answer: (B)
Explanation: If circle $=\mathrm{C}$, triangle $=\mathrm{T}$, diamond $=\mathrm{D}$ and square $=\mathrm{S}$. We can make 3
equations:

1. $2 \mathrm{C}=3 \mathrm{~T}$
2. $D=S+T$
3. $C=D+S$

Use these equations to put $D$ in terms of $S$ (i.e. how many squares equals one diamond)
Rearrange 2 so that $\mathrm{T}=\mathrm{D}-\mathrm{S}$
Sub equations 2 and 3 into equation 1
2(D+S) $=3(D-S)$
$2 D+2 S=3 D-3 S$
$5 S=\mathrm{D}$ : Therefore 5 squares are equal to 1 diamond.
25. (DMSR0015)

Answer: (C) 6th
Explanation: Ben comes in 1st place and Sam in 2nd place. Sophie and Ryan lose to Christina and beat Tom and Joseph loses out to Sarah. Therefore Joseph comes 8th, Sarah comes 7th and Tom comes 6th.
26. (DMEA0016)

Answer: (C)
27. (DMSR0025)

Answer: (B) £30
28. (DMDR0026)

Answer: (A) YES (B) NO (C) NO (D) YES (E) NO
29. (DMFR0024)

Answer: (A) No, 48 gardens have exactly one type of flower.
(B) It can, the answer is 0 as there's no intersection of all 4 circles in the diagram.
(C) Yes, the number of roses is $30+X+Y$, the number of daisies is $36+X+Y$. Don't need to know value of $X$ and $Y$, will be more daisies no matter the value.
(D) No, essentially referring to the value of $X$ and $Y . X+Y=100$ - (sum of all other values in diagram) $=100-90=10$.

