## Presidential Schools - Thinking Skills Test

## SAMPLE QUESTIONS

The questions below are intended as a guide to the types of question which will be included in the Thinking Skills test for students applying to grades 5-6.

The key for each question, together with a short justification, is also included.
For further information please see the separate test specification document.

## Critical Thinking

1 A health specialist has suggested that dance lessons should be an important part of the school curriculum, and that school children should spend as much time learning to dance as they do playing sport.

Which one of these facts would make you most likely to agree with the health specialist?
A Dancing improves children's mental abilities.
B Some children cannot afford equipment to participate in sports.
C The health specialist is a trained dancing teacher.
D Dancing has previously been taught in schools.

Key: A

## Justification

If dancing improves children's mental abilities, then this strengthens the argument that dance lessons should be an important part of the school curriculum.

2 If you want to be healthy when you are older, you need to eat well but also take regular exercise.


## Jamshid eats badly so he will not be healthy when he is older.



Who is right?
A Zara only
B Sergei only
C Both Zara and Sergei
D Neither Zara nor Sergei

## Key: B

## Justification

The argument states that two conditions must be met for a person to be healthy when they get older: regular exercise and a healthy diet.

Zara is not correct because it is possible that Jamshid takes regular exercise, but also has an unhealthy diet.

Sergei is correct because if Jamshid eats badly, he will not meet one of the conditions for being healthy in old age.

3 Aziz, Bobur, Karim, and Dilshod play in a sports team. The coach has just told them: "If Aziz does not play tomorrow, then Bobur will play. If Aziz does play, then Karim will play in place of Dilshod."

So, if Bobur does not play tomorrow, which of the other three will be in the team?
A Aziz only
B Dilshod only
C Aziz and Karim
D Karim and Dilshod

## Key: C

## Justification

We are told 'If Aziz does not play tomorrow, then Bobur will play'. So, if Bobur does not play tomorrow, then we know that Aziz must play. If Aziz plays, we know that Karim will also play - hence, we know that Aziz and Karim will play.

4 Out of a sample of television viewers, everyone who liked volleyball liked skiing. Everyone who liked skiing liked cycling, but no one who liked skiing liked gymnastics.

Based on the above information, which one of the following must be true?
A If Davron likes cycling, he also likes skiing.
B If Oybek does not like volleyball, he does not like skiing.
C If Jess likes volleyball, she does not like gymnastics.
D If Afifa likes cycling, she also likes volleyball.

## Key: B <br> Justification

Everyone who likes volleyball also likes skiing, so if Oybek does not like volleyball, it must be true that he also does not like skiing.

## Problem Solving

1 I am considering buying a camera, as well as a lens and a case for the camera. The price for the camera and the lens is $\$ 600$. The price for the camera and the case is $\$ 450$. The price for the lens and the case is $\$ 250$. Each item has a fixed price and no discounts are given when they are bought together.

What is the price of a camera?

A $\$ 50$

B $\$ 200$
C $\$ 400$
D $\$ 650$

## Key: C

## Justification

By adding the three figures mentioned in the passage $(600+450+250=1300)$, you work out how much it would cost to buy two of each item.

The price for one of each item is therefore $\$ 650$ ( $\$ 1300 / 2$ )
The price of the camera can be found by subtracting the price of the lens and the case (\$250) from the price for one of each item (\$650)
$\$ 650-\$ 250=\$ 400$ price of the camera.

2 A show is to be performed at the Rhodium Theatre from Wednesday 12th to Saturday 29th of the same month. There will be a performance every evening. On Wednesdays and Saturdays there will be an afternoon performance as well.

How many performances of the show will there be?

A 21

B 22
C 23

D 24

## Key: D

## Justification

Wednesday 12th - Saturday 29th is 18 days and therefore 18 evening performances. There will also be afternoon performances on 3 Wednesdays and 3 Saturdays.

Total number of performances is $18+3+3=24$

3 Anora was counting her money and found that she had 12000 som. She was able to put all of her banknotes into three piles of 100 som notes, 200 som notes and 500 som notes. She found that there were three times as many 100 som notes as 200 som notes, and twice as many 200 som notes as 500 som notes.

How many banknotes did Anora have?

A 42

B 48

C 60

D 72

## Key: D

## Justification

For every one 500 som banknote, there will be two 200 som banknotes and six 100 som banknotes. So, for every one 500 som banknote there will be a total of 9 banknotes adding up to 1500 som ( $(1 \times 500)+(2 \times 200)+(6 \times 100))$.
$12000 / 1500=8$, so there will 8 lots of 9 banknotes, and $8 \times 9=72$.

4 Mrs Pasha is buying sports shoes for her two sons, Kash and Mekah.
The following table shows the shoes that are available.

| type | sizes available | colours available | cost |
| :---: | :---: | :---: | :---: |
| shoe A | $1-10$ | white | $\$ 60$ |
| shoe B | $5-12$ | black, blue | $\$ 50$ |
| shoe C | $3-8$ | black | $\$ 55$ |
| shoe D | $2-6$ | red, black, white | $\$ 70$ |
| shoe E | $5-10$ | blue, black | $\$ 40$ |

Kash needs size 4, but he will not have black or blue shoes.
Mekah needs size 8, and will only have white or red shoes.
What is the least amount that Mrs Pasha will have to pay for the two pairs of shoes if her sons' wishes are met?

A $\$ 110$

B $\$ 115$

C $\$ 120$

D $\$ 130$

## Key: C

## Justification

Kash needs size 4, so shoe A, C or D. But shoe C is only available in black, so shoe A or D.
Mekah needs size 8 , so shoe $A, B, C, E$. But it must be white or red, so only shoe $A$.
Mrs Pasha must buy shoe A + shoe A costing \$120, or shoe D + shoe A costing \$130. The least cost is therefore $\$ 120$.

5 The table shows the numbers of children, of different ages, using a play area for four days.

| day | time | 1-year-olds | 2-year-olds | 3-year-olds | 4-year-olds | 5-year-olds |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Monday | morning | 5 | 5 | 8 | 8 | 4 |
|  | afternoon | 3 | 6 | 5 | 8 | 8 |
| Tuesday | morning | 5 | 5 | 8 | 12 | 4 |
|  | afternoon | 3 | 6 | 5 | 12 | 8 |
|  | morning | 5 | 5 | 8 | 8 | 5 |
|  | afternoon | 3 | 6 | 5 | 12 | 8 |
| Thursday | morning | 5 | 5 | 8 | 12 | 4 |
|  | afternoon | 3 | 6 | 5 | 12 | 5 |

On which one of the four days during the week were more children using the play area in the morning than in the afternoon?

A Monday
B Tuesday
C Wednesday
D Thursday

## Key: D

## Justification

This question can be solved by looking at the differences between the morning and afternoon figures. Monday and Tuesday have equal numbers of children using the play area in the morning and afternoon. Wednesday has more children using the play area in the afternoon. Thursday is the day when more children are using the play area in the morning compared with the afternoon.

| Day | Time | 1 year <br> olds | 2 year <br> olds | 3 year <br> olds | 4 year <br> olds | 5 year <br> olds | total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Morning | 5 | 5 | 8 | 8 | 4 | 30 |
|  | Afternoon | 3 | 6 | 5 | 8 | 8 | 30 |
| Tuesday | Morning | 5 | 5 | 8 | 12 | 4 | 34 |
|  | Afternoon | 3 | 6 | 5 | 12 | 8 | 34 |
| Wednesday | Morning | 5 | 5 | 8 | 8 | 5 | 31 |
|  | Afternoon | 3 | 6 | 5 | 12 | 8 | 34 |
|  | Morning | 5 | 5 | 8 | 12 | 4 | 34 |
|  | Afternoon | 3 | 6 | 5 | 12 | 5 | 31 |

6 I am planning to buy a game console and I have narrowed down my choices to the following four options.

|  | console 1 | console 2 | console 3 | console 4 |
| :--- | :--- | :--- | :--- | :--- |
| price (\$) | 400 | 500 | 300 | 600 |
| release date | 2013 | 2013 | 2017 | 2018 |
| memory (GB) | 8 | 12 | 4 | 16 |
| storage (GB) | 500 | 1000 | 32 | 2000 |
| available games |  |  |  |  |
| Zoe |  |  | $\checkmark$ |  |
| First | $\checkmark$ |  |  |  |
| Hello |  | $\checkmark$ |  |  |
| West | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |

I cannot spend more than $\$ 500$ on the console and I want to be able to play the game 'West'. If more than one console fulfils these requirements, I will buy the console with the largest storage.

Which one of the four game consoles above should I buy?
A console 1

B console 2
C console 3

D console 4

## Key: B

## Justification

Since I cannot spend more than $\$ 500$, I cannot buy console 4 . Since I want to be able to play the game 'West' I cannot buy console 3. Consoles 1 and 2 fulfil all of my requirements, so I should buy console 2 as it has larger storage.

7 A fish tank at an aquarium can be viewed from both sides. Two friends decide to take a photo of the tank at exactly the same time from each side of the tank. The view below is the photo from one side of the tank, which has eight fish swimming around in different directions.


Which one of the following is the photo taken from the other side of the tank?
A

B

D

C


## Key: D

## Justification

The view from the other side of the aquarium will be a reflection of the original view. This means that the fish will appear to be swimming in the opposite direction and on the opposite side of the aquarium, but they will be at the same height in the aquarium.

8 The diagram shows one of a number of ways that five different shapes can be arranged together to form a square.


Which one of the following squares consists of the same five shapes as the square above? (They may be turned over.)
A

B

C


D


Key: A

## Justification

Square A has the correct shapes.
Square B, C and D all contain a shape that is not present in the first diagram.

9 A piece of rectangular paper is folded in half, and then in half again. The second fold is at rightangles to the first.

A corner is cut off the folded paper. The paper is then completely unfolded.

Which of the following is not a possible appearance of the unfolded paper?
(The dotted lines represent the folds).
A

B

C

D


## Key: B

## Justification

The missing parts of the paper should form a symmetric pattern with the two fold lines as lines of symmetry. This is the case for A, C and D, but not B.

