

PART A - CHOICE ITEMS

ACTIVITY 1

Read the text below and respond to the task that follows.

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The Magic of Mathematics

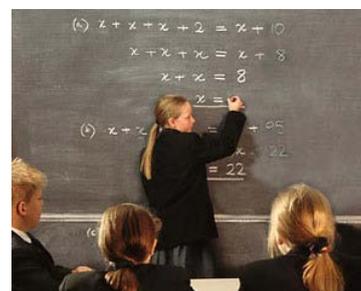
As a teacher, I am fully aware that parents across the world are on the lookout for some sort of secret formula that will unlock their children's mathematical skills.

There are some well-known success stories; Japanese educator Toru Kumon has some four million students in 43 countries. His method is founded on the concept that repetition and speed are the basis of making a good mathematics student much as one might practise scales as a piano player. Yet, although it is unarguably essential to have some technical skills at your fingertips, if pupils are left with the impression that this is what maths is about, I fear this kind of approach will only accentuate a student's boredom with mathematics and hostility to the subject.

Many of those who criticise such methods as "drill and kill" think that the solution lies elsewhere. In France, parents have been flocking to Stella Baruk the "J.K. Rowling of figures" in the hope that she can perform the same magic for mathematics that the Harry Potter stories did for children's literacy. Baruk believes that language and understanding are the magic ingredients. Born in Iran, home of the great poet and mathematician Omar Khayyam, Baruk focuses on teaching maths as a living language with meaning.

She bemoans the response that eight and nine-year-olds in France gave to this question: "On a boat there are 26 sheep and 10 goats. How old is the captain?" Of the 97 children who were asked, 76 responded by using the numbers contained in the statement –giving the captain's age as 26 or 10

or maybe 36. Maybe it's all those posters pinned on young children's bedroom doors that cause the problem. Seeing pictures of two apples and three dogs followed by five medicine bottles can be confusing for a child trying to make sense of how you manage to get cough mixture by combining fruit with pets.



Baruk is keen to get children looking beyond the objects, to get a feeling for the abstract nature of numbers. But she is not opposed to using a little sorcery in the shape of such mathematical curiosities as magic squares. It is bringing alive the magic and playfulness of mathematics that, for me too, is key, as I witnessed last year at a play in London. At the start of the show, an actor asked members of the audience to think of a number. "Now double your number. Add 14 to the new number. Divide this number by 2. Finally, subtract the first number you thought of." I was staggered at the gasp of surprise as the actor revealed that everyone was thinking of the number seven.

One can demonstrate why this trick works, whatever the numbers, with elementary algebra but this is where maths and magic differ. Whereas understanding a conjuring trick diminishes its appeal, understanding a maths trick enhances it, and it's such magic that will capture children's imagination.

ATTENTION

- Try to answer all the questions.
- Mark your answers on Answer Sheet 1 [ΑΠΑΝΤΗΤΙΚΟ ΕΝΤΥΠΟ 1].
- Provide a single answer for each item.
- You have **120 minutes** to complete this exam.

Read the text and choose the best answer (A, B, or C) for items 1a-5a.

- 1a. What does the writer think of the methods proposed by Toru Kumon?
A. They ensure that children perfect important abilities. **B.** They may be counter-productive in the long run. **C.** They risk making Maths students overconfident.
- 2a. What do parents in France think Baruk may be able to do?
A. Stimulate an interest in Maths in their children. **B.** Enable their children to lose their fear of Maths. **C.** Encourage children to discuss Maths with each other.
- 3a. For Baruk, the anecdote about the sheep and the goats shows that many children
A. cannot follow complex and lengthy mathematical instructions. **B.** can perform only simple mathematical calculations. **C.** tend to make correlations between dissimilar concepts.
- 4a. Why does Baruk use 'sorcery' in her method?
A. To engage the children's interest in maths. **B.** To develop mathematical skills faster. **C.** To explain abstract ideas more clearly.
- 5a. What surprised the writer at the play he saw?
A. The audience's specific choice of number seven. **B.** That the audience revealed a genuine interest in maths. **C.** That the audience were impressed by a trick of extreme simplicity.

ACTIVITY 2

Read the following extracts (6a-10a) and decide in which publication they might appear. Use each of the options below (A-F) only once. There is one option you do not need.

A.	Assembly instructions	B.	Book review	C.	Exhibition catalogue
D.	Personal letter	E.	Recipe	F.	Safety instructions

6a.	Essentially self-taught, Anna has developed a unique style of contrasting polished and oxidised surfaces, creating subtle tones and effective stylisation, inspired by the natural world, such as the plumage and character of our wild birds. Items may be reserved and collected at the end of the week, and Anna also accepts private commissions.	
7a.	Carefully, and with two people, set the bottom drum with support arm onto the side supports of the stand as shown, so that the bearing blocks slot into the channels provided by the side supports.	
8a.	Roll out dough to 6 mm (1/4 inch) thickness on a lightly floured surface and cut into 5cm (2 inch) circles. Bake blind with silicon beads for approximately 10 minutes at a moderate heat, checking periodically to make sure that the edges are not catching. Then remove and allow the discs to cool before proceeding to the next step.	
9a.	Evokes with a beguiling lyrical muscularity the peaks and troughs in the life of seven-year-old Evie, who, after her mother's death, moves to her grandparents in a "lopsided, leaky house on the edge of a north-facing mountain". You only need to scratch at the surface of this landscape to find it layered with loss, for it is a place full of "secret pockets and hidden doors".	
10a.	Elisa left us a few weeks ago and has now returned to Modena, where she will face the rather daunting prospect of trying to find a job. Still, difficult though it may be, she is really upbeat about the whole thing, and with a bit of luck that kind of attitude will stand her in good stead.	

ACTIVITY 3**3.1** Read the text below and choose the best answer (A, B, or C) for items 11a-16a.

Chapter 1

THE HERITAGE OF HELLENISM

In 334 BC, Alexander crossed the Hellespont from Europe to Asia and the world was never the same again. He swept through Asia Minor and across the Indus, where the troops mutinied. It was incredible, breathtaking! At one point, he and his army covered four hundred miles in ten days. He had dreamed of reaching Ocean, the great river which in Greek thought encircled the land mass of the world, of giving his troops an outlet to the sea, which they felt to be their home, of solving the ravelled problems of the geographers. But his troops would go no further. For a time, he sulked like his hero, Achilles, then he turned back down to Karachi, northwestwards along the coast, and so, amid bitter privation, inland back to Susa.

He left Greece with Aristotle and Isocrates as the background to his thinking. Aristotle had taught him that, Greeks and Greeks alone, had full and true 'humanity'. Foreigners, *barbaroi* (people who make unintelligible noises such as 'bar-bar' instead of speaking a lucid language like Greek) were by nature slaves. Isocrates had yearned for Greek unity, and unity is most easily attained in opposition to a common enemy. Isocrates hoped to find unity in renewing the old crusade against Persia, and, when the Greek states took no initiative, looked to an individual, Nicocles or Dionysius, Philip or Alexander, to lead the crusade. Alexander, crusading against the barbarians with Homer under his pillow, came to find Greeks who let him down, and Asians whom he could respect as opponents, like Memnon, or trust as administrators, like Ada. Practical experience led to rejection of Aristotle and Isocrates, and a policy of fusion.

He, himself, eighty of his officers and ten thousand troops married Persian girls. Alexander made ready to admit Persian troops to his army, but the army showed signs of discontent. Alexander dismissed them and prepared to form an army of Persians. The Macedonians protested. 'You have made the Persians your kinsmen', he answered. 'But I make you all my kinsmen', and in a scene of cheering and weeping, reconciliation was won. At a celebrated banquet, of which much has been made, Alexander prayed for concord and partnership in empire between Greeks and Persians.

Was there more to it than that? Sir William Tarn thought that there was. Alexander, he claimed, had a vision, for the first time in history, of the unity of mankind. This view has been radically and persuasively criticized by Dr. Badian and others. Four passages in our sources have been claimed in support of Tarn's view. First, while Alexander was in Egypt, we are told that he visited the oracle of Zeus, Ammon, in the desert, and received the revelation that he was the god's son. Enough has not been made of the fact that this was Siwa, not Delphi or Dodona, and the god who gave the oracle was not panhellenic, but international in a wider sense. Shortly after this, we are told he was pleased with the saying, 'God is the king of men' (a Homeric commonplace) but went further and reached the wise conclusion that God is the common father of all mankind, but makes the best men peculiarly his own.

Adapted from: Ferguson, John. *The Heritage of Hellenism*. London: Thames and Hudson, 1973

- 11a. This text describes Alexander as
 A. a great military strategist. B. a great scholar. C. a universal leader.
- 12a. A possible title for this text would be
 A. Alexander's passage from Greece to the world. B. Alexander: Enemy of the Barbarians. C. Aristotle's influence on Alexander.
- 13a. The text as a whole
 A. is strongly critical of Alexander's achievements. B. defends Alexander against his critics. C. has a rather positive attitude towards Alexander.
- 14a. What was Alexander's dream?
 A. To sail back home by sea. B. To explore uncharted waters. C. To follow the route taken by Achilles.
- 15a. The Macedonian soldiers opposed Alexander's decision to
 A. break up his army. B. include Persians in the army. C. impose intermarriages on them.
- 16a. Alexander prayed that
 A. the Greeks and Persians would live together in peace. B. the Greeks would win the war against the Persians. C. there would be peace between him and his army.

3.2 Decide if according to the text statements 17a-21a are True (A) False (B) or Not Stated (C).

STATEMENTS		A	B	C
		TRUE	FALSE	NOT STATED
17a.	Isocrates had a greater influence on Alexander than Aristotle.			
18a.	The Greeks sometimes disappointed Alexander.			
19a.	William Tarn's view was that there was something more to Alexander than him having a great military vision.			
20a.	Dr. Badian fully adopted and expanded Tarn's view of Alexander.			
21a.	Tarn's view of Alexander is now more influential than that of his opponents.			

ACTIVITY 4

Read the text and match the underlined words (22a-26a) with their meanings in the text (options A-F). There is one option you do not need.

A.	rural	B.	polished	C.	frivolous
D.	wise	E.	cordial	F.	harsh

Ultimate cycling

Almost everything in life is better if you do it slowly: slow cooking, slow eating, slow travel. And as the chattering, twittering idiosyncrasy of the world continues to spin ever faster on its hare-brained little axis, the 22a) enlightened ones are starting to opt out. So why not buck the trend as well and take time on your bike?



The ideal is a classical, sit-up-and-beg style bike rather than a 23a) sleek, carbon fibre speed machine. It's not that we, slow and stately cyclists, frown upon the poor, hurried unfortunates, hunched joylessly over their drop handlebars. Rather, our heart goes out to them and their 24a) grim determination. The fact that cycling should be about pleasure seems to pass them by, which is sad, because few pleasures can live up to heading out for a picnic, pedalling down a (25a) country lane in June fringed with flowers, with a 26a) genial friend cycling alongside and the birds singing. And most importantly, you'll be in no hurry to get anywhere in particular...

ACTIVITY 5

Read the text and choose the best answer (A, B, or C) for items 27a-31a.

The emancipation of colour

Between 1890 and 1905 the emancipation of colour was completed. Like most of history's upheavals, this one looks inevitable when surveyed from a safe distance. Emancipation had been in the air for a long time: and it was evident that radical



changes—some peaceful, some not—were on the way. The 1860s saw the emancipation of the serfs in Russia and the slaves in the United States; the emancipation of women would take longer, but it was on the cards. It was unthinkable that in art, equivalent emancipations should not occur.

Gradually it became clear that the traditional patronage of the state and the church was giving way to an open,

more informal relationship between the painter, his dealer and just one or two informed collectors. The tyranny of the big annual official exhibition loosened around the same time; subject matter was set free, now that the favour of a frock-coated official was no longer essential to an artist's advancement.

Colour was undergoing a similar emancipation. As early as 1885, when van Gogh observed that "colour expresses something by itself." That colour could send coded messages in a cipher not yet cracked was clear to Gauguin by 1888 and quickly got through to his disciples. That colour could make volume and define form was being proved by Cézanne all through the 1880s and 1890s. The more men looked into the fundamentals of art, the more consistently did colour turn up at the centre of their inquiries.

But when colour finally came out strongly at the Salon d'Automne of 1905, people were dumbfounded, all the same. As in other departments of life, it is one thing to talk about emancipation and quite another to meet it face to face. There were local and auxiliary motives for their stupefaction: many of those who were appalled by Matisse's paintings at the Salon d'Automne in Paris in 1905 had never seen a Gauguin or a van Gogh and knew nothing of the historic fatality which had brought those particular Matisses into being. But there was also a general and a more rational reason to raise the alarm.



Colour is a constant; we don't like to feel that it is subject to alteration. Colour is fundamental to life: to call a man "colourless" is as rude as we can get without descending to particulars. Colour has a hot line to instinct, and its messages take priority even over those of language; the hunter doesn't need to speak if he can point to fresh blood in the snow. Our first reaction to change in all this is one of defensive rigidity; if the traffic lights turned blue at the next intersection, a conservative driver would put the gears into neutral and sit by the side of the road.

ACTIVITY 7

Read the text and choose the best answer (A, B, or C) for items 38a-45a.

PARENTSMAGAZINE

Boys will be Boys and Girls will be Girls

Toy Story

The drummer stands straight, stiff and splendid in scarlet and black bearskin. Opposite him are the lines of blue-coated French, bayonets fixed. Their cavalry, a single Polish lancer, gallops in from the left. Things are not looking good for the drummer. Suddenly, out of the sky, swoops a pterodactyl. It grips the drummer and lifts him up, over the carpet to the safety of the armchair.



The core collection of these men were my father's, and he had inherited them from his father. They passed from me first to my eldest son, then to my youngest. He has a twin sister; she has never shown more than a passing interest in the soldiers, never thought it unfair that he inherited them. "They are" she says "boys' things".

Every new father makes the same silent oath at the birth of his children: "I will always be there to catch you, for your first step, behind your first bicycle, at college, out of love, in work, falling from grace, jumping for joy". The promise isn't gender-specific. You don't think a son's grazed knees are less important than a daughter's, or her broken heart any more despairing than his.

The twins are now six and the things they've seen, the stories they've heard, the films they've sat through, are all pretty much gender-neutral. I don't have a single friend who thinks girls belong in the kitchen and boys in the army. People like that are almost impossible to find, just as it's difficult to access modern cartoon films or children's books that aren't made with an achingly evangelical blandness that renders them as the very definition of tedium!

Yet despite all that, my son chose to pick up the sword, my daughter to push a pram. Both had soft toys in the crib: hers are still hugged, his are mostly collateral damage. The distinction between the two is so marked that it would have taken months of committed prejudice to achieve. Each respects the boyness or the girlness of the other. This is my second family of a boy and a girl, and I notice exactly the same distinctions. A behaviourist might say this is because I am the common ingredient, I manipulate unconsciously, but I feel that's less than likely.

The Museum

I was recently escorted round the Museum of Childhood, where dolls and teddy bears and farm animals look discarded and unloved. And after a bit, it creeps up on you that the Museum of Childhood, with all its inclusivity, its community spirit and liberal decency, its pushchair-friendly cafe and gift shop, is hiding something. Half the human race has been left out. The detritus of a boy's bedroom has been brushed aside. The swords, the bows and arrows, the tanks and all the soldiers are absent, just a couple of sorry specimens sectioned in with the dolls for political re-education.

I ask the curator to explain it all. She smiles at me sweetly. "Do you imagine boys don't play with teapots and teddies and dolls?" Well, yes, of course they do, but mostly to tie them up and shoot them for treason. That's a gender bias, I'm told, that encourages boys to violence. I ask her if she thinks the museum should have a position, a social point of view. "Oh yes, we should celebrate what's good." Anyway, we don't need to argue: there is an exhibition devoted to boys' violent make-believe. A temporary one. That says it all.

The Professor

I asked a Professor of Education and children's things why boys played differently from girls. Well, she said, there's some evidence that it might be due to hormones but it's more likely to be social pressure. We all bring up boys and girls differently. I tell her about my twins, and how, from the earliest moment they've behaved archetypally. "Yes", she says patiently, in the way that professionals do when they mean no, "but you are also not the only influence on your children".

OK, but is it bad for boys to play violent games? "Oh no", she says, "the evidence is clear, it's a necessary part of growing up. It's imaginative play. It helps them to socialise. It turns out that boys' play is quite the opposite of learning to be violent: it's a way of managing and understanding the scary bits of life. It is a catharsis."

As I watch my son kneeling on the carpet, lost in his soldiers, issuing orders, imitating voices, I feel a contradictory millefeuille of emotions: nostalgia for the gripping make-believe when you could still really believe, and a sad, grey jealousy: I'll never have that again; my pretending is just pretend. Grown-ups can collude that play is really practice for adult life. But it isn't. Children don't see it as training for the office or the call centre or the till. In our increasingly rational and over-explained lives, the only things that still have the power of animism are toys. They contain the magic of childhood.

- 38a. The main purpose of the first paragraph is to illustrate
- A. the power of a child's imagination. B. the influence of violence on children. C. the value of traditional toys.
- 39a. How does the girl feel about her brother's ownership of the collection?
- A. Resigned. B. Resentful. C. Unconcerned.
- 40a. The 'silent oath' that parents make relates to
- A. giving their children a competitive advantage. B. being fully supportive of their children. C. having realistic expectations of their children.
- 41a. What does the writer say about the books and films his children are exposed to?
- A. They appeal less to his son than his daughter. B. They have become comparatively boring. C. They sometimes have inappropriate content.
- 42a. The writer suggests that the distinctions between his children
- A. arise from something other than their upbringing. B. are the result of the way he was brought up as a child. C. stem from the boy and girl being treated differently.
- 43a. Who are described as having been 'left out' of the Museum of Childhood?
- A. Adults. B. Girls. C. Boys.
- 44a. The Professor of Education suggests that the writer
- A. has children who seem to be easily swayed by others. B. may be unaware of how his children are influenced. C. does not understand the influence of hormones in playing.
- 45a. Why does the writer feel a sense of jealousy?
- A. His son is playing with the toys that he once had. B. He can no longer use his imagination like a child. C. His own childhood games had practical purposes.

ACTIVITY 8

Match the underlined words (46a-50a) with their meaning (A-F). There is one option you do not need.

A.	bring into subjugation	B.	undertake the leadership	C.	make a getaway
D.	form a coalition	E.	bring about great transformation	F.	head for

NAPOLEON BONAPARTE

36



"I am never angry when contradicted; I seek to be enlightened." *Napoleon*

Considered one of the world's greatest military leaders, Napoleon Bonaparte was born on August 15, 1769, in Ajaccio, Corsica, France. He was the fourth, and second surviving, child of Carlo Buonaparte, a lawyer, and his wife, Letizia Ramolino. He has gone down in history as the person who **46a)** revolutionized military organization and training, sponsored the Napoleonic Code, reorganized education and established the long-lived Concordat with the papacy. He died on May 5, 1821, on the island of St. Helena.

At the time of Napoleon's birth, Corsica's **47a)** occupation by the French had drawn considerable local resistance. Carlo Buonaparte had at first supported the nationalists **48a)** siding with their leader, Pasquale Paoli. But after Paoli was forced to **49a)** flee the island, Carlo switched his allegiance to the French. After doing so he was appointed assessor of the judicial district of Ajaccio in 1771.

Eventually, Napoleon ended up at the military academy, where he studied for five years, before moving to Paris. In 1785, his father died of stomach cancer. This propelled Napoleon to **50a)** take the reins as the head of the family. Graduating early from the military academy, Napoleon, now second lieutenant of artillery, returned to Corsica in 1786.

Back home Napoleon got behind the Corsican resistance to the French occupation, siding with Pasquale Paoli. But the two soon had a falling-out, and when a civil war in Corsica began in April 1793, Napoleon, now an enemy of Paoli, and his family relocated to France, where they assumed the French version of their name: Bonaparte.

PART B - SHORT ANSWERS

ACTIVITY 1

Fill in gaps 1b-5b with the appropriate words to complete the statements. Use each of your choices only once.

1b.	_____ Europeans did not invent slavery, they long benefited from it, causing untold deaths and suffering under colonialism and imperialism.
2b	_____ that the US got there first, political revolution is also the child of Europe.
3b	I provide these examples _____ to argue that Europe has a social system worth safeguarding and fighting for.
4b.	A psychologist might say that the differences in my children’s behaviour have come about as _____ my having treated them differently.
5b.	_____ twenty or thirty years ago did anyone even question whether there were such things as boys’ toys or girls’ toys.

ACTIVITY 2

Read the text below and choose ONE word that fits the gap for items 6b-10b. The first letter of each word is provided and the dashes correspond to the missing letters.

Physics is one of the oldest academic **6b)** d _____, perhaps the oldest through its inclusion of astronomy. It involves the study of matter and its motion through space and time, along with related concepts such as energy and force. More broadly, it is the general analysis of nature to understand how the universe behaves. Drawing heavily on experiments **(7b)** c _____ over the last two millennia, physics has been a part of natural philosophy along with chemistry, certain branches of mathematics, and biology. Physics intersects with many interdisciplinary **(8b)** r _____ areas such as biophysics and quantum chemistry, and its boundaries are not rigidly defined. New ideas in physics often explain the very basic and **(9b)** f _____ mechanisms of other sciences while opening new avenues for investigation in areas such as mathematics and philosophy.

Physics also makes significant contributions through applications in new technologies and new forms of **(10b)** e_____ that can probably give an effective solution to fuel-related economy problems that all countries face. Similarly, progress in the understanding of electromagnetism or nuclear physics led directly to the development of new products which have dramatically transformed modern-day society, such as television, computers, domestic appliances, and nuclear weapons; progress in thermodynamics led to the development of industrialization; and progress in mechanics inspired the development of calculus.

ACTIVITY 3

Solve the puzzle below. Put the jumbled words in column B in the correct order to complete the sentences (11b-15b) in column A.

UTTERANCES		WORDS IN JUMBLED ORDER
0.	Hotel reservation confirmation If you <u>would like additional information about</u> your destination hotel, visit us online.	additional - about - would - information - like
11b.	School report Christos has worked reasonably hard this term, but if he is to attain the grades _____ capable, he needs to step up a gear over the next few months.	be - him - know - of - to - which - we
12b.	Travel report The city's social scene is thriving, and the _____ with students and tourists, creating an artsy ambience you won't want to miss.	sidestreets - teem - once - sleepy - now
13b.	Car safety notice Optimum benefit is obtained from the seat belt with the seat upright. _____ occupants be allowed to travel with the seat back reclined steeply.	account - front - must - no - on - seat
14b.	Leaflet The middle terrace shows the designer's trademark naturalistic planting off to perfection, _____ east extends across the arboretum to a group of mature Wellingtonia.	a - fine - the - to - vista - while
15b.	Film review It's a brave director who takes on The Great Gatsby. Since its publication in 1925, F. Scott Fitzgerald's novel has been adapted no less than _____ success.	but - four - little - times - with

ACTIVITY 4

Fill in the gaps 16a-20a with 1-3 words which complete an English *idiomatic expression* so that the statements below make sense.

16b.	The house was in a mess after the party, so my sister and I had to roll _____ and start cleaning before our parents were back!
17b.	I think that it's totally unfair how she treated him. I remember last time when he tried to help her, he gave her a big loan to salvage her home and when he asked when she'd be able to return the loan she told him to get _____.
18b.	He drives us up _____ with his constant nagging. He's always been that way, but the older he gets the worse he becomes. I don't think I can take it anymore. I'm going to move out even if I have no money to rent a place on my own.
19b.	Jack enjoys the pleasures of a rural life but he's always complaining about how isolated he feels and how he can't make interesting friends. Well, what I told him is that he can't have his pie and _____ too.
20b.	He shows a lot of authority, especially when he's addressing the board of the company but in fact it's his wife who _____. It was with her money that they expanded.

ΣΑΣ ΥΠΕΝΘΥΜΙΖΟΥΜΕ ΟΤΙ ΠΡΕΠΕΙ ΝΑ ΜΕΤΑΦΕΡΕΤΕ ΟΛΕΣ ΤΙΣ ΑΠΑΝΤΗΣΕΙΣ ΣΤΟ ΕΝΤΥΠΟ 1

ΤΕΛΟΣ ΜΗΝΥΜΑΤΟΣ