

**BOSHLANG‘ICH SINF MATEMATIKA DARSLARIDA
O‘QUVCHILARNING MANTIQIY TAFAKKURINI SHAKLLANTIRISH**

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**ФОРМИРОВАНИЕ ЛОГИЧЕСКОГО МЫШЛЕНИЯ УЧАЩИХСЯ НА
УРОКАХ МАТЕМАТИКИ В НАЧАЛЬНЫХ КЛАССАХ**

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**FORMATION OF STUDENTS LOGICAL THINKING IN PRIMARY CLASS
MATHEMATICS LESSONS**

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ANNOTATSIYA:

Ushbu maqolada məktəbdə matematik mantiqiy masalalarini o‘qitishning dolzarbliği va uni samarali o‘qitish yo‘llari haqida bayon qilingan. Boshlang‘ich ta’lim matematika darsliklaridagi mantiqiy misol, masalalar o‘rganilgan va mantiqiy boshqotirmalardan namunalar keltirilgan. Matematika darslarida mantiqiy misol va masalalar vositasida boshlang‘ich sinf o‘quvchilarining mantiqiy fikrlash qobiliyatlarini shakllantirish usullari tahlil qilingan.

АННОТАЦИЯ

В этой статье описывается важность преподавания логических математических задач в школе и способы эффективного преподавания. Приведены примеры логических примеров, задач и логических задачек из учебников элементарной математики. На примере логических примеров и задач на уроках математики проанализированы способы формирования умений логического мышления учащихся начальных классов.

ABSTRACT

This article describes the importance of teaching logical mathematical problems at school and ways to teach it effectively. Examples of logical examples, problems, and logical puzzles from elementary mathematics textbooks are presented. Methods of formation of logical thinking abilities of elementary school students were analyzed by means of logical examples and problems in mathematics lessons.

Kalit so‘zlar: Tafakkur, boshqotirma, mantiqiy tafakkur, mantiqiy misol, sonli bog‘lanish.

Ключевые слова: Мысление, ребус, логическое мышление, логический пример, числовая связь.

Keywords: Thinking, puzzle, logical thinking, logical example, numerical connection.

O‘zbekiston hukumati innovatsion iqtisodiyotni yaratish, O‘zbekistonning ijtimoiy-iqtisodiy rivojlanishining uzoq muddatli maqsad va vazifalarini amalga oshirish, yuqori samarali ish o‘rinlarini modernizatsiya qilish bo‘yicha maqsadlarni qo‘ydi. Shunday ekan, mamlakatimizning XXI asrdagi muvaffaqiyati fanni talab qiladigan va yuqori texnologiyali ishlab chiqarishlar uchun malakali mutaxassislariga bo‘lgan ehtiyojni qondirish nuqtai nazaridan, bu bevosita yuqori sifatli matematik ta’limga bog‘liq. “Matematikani o‘rganish ta’limda tizimli rol o‘ynaydi, insonning

kognitiv qobiliyatlarini, shu jumladan mantiqiy fikrlashni rivojlantiradi...”[1]. Bularning barchasi zamonaviy jamiyatda nafaqat yaxshi ma’lumotga ega bo‘lgan mutaxassislarining, balki qutidan tashqarida fikr yurita oladigan mutaxassislarining mavjudligini nazarda tutadi. Shu munosabat bilan, asosiy umumiyligi ta’limning ustuvor yo‘nalishi - o‘rganishga, o‘z-o‘zini tarbiyalashga va olingen bilimlarni amaliyotda qo‘llashga qodir bo‘lgan o‘quvchilarning rivojlanish salohiyatini ro‘yobga chiqarishdir. Insonning fikrlash qobiliyatining muhim tarkibiy qismlaridan biri bu mantiqiy savodxonlik, ya’ni har qanday intellektual faoliyatda zarur bo‘lgan ma’lum bir minimal mantiqiy ko‘nikma va bilimdir. Mantiq matematikaning ajralmas qismi bo‘lganligi sababli, maktab o‘quvchilari uchun maktab matematika kursida mavjud bo‘lgan mantiqiy tushunchalar va harakatlarni ajratib ko‘rsatsak, ularga tegishli uslubiy ishlov berishni qo‘llasak, ularda mantiqiy ko‘nikmalarni shakllantirish mumkin deb taxmin qilish mumkin. Har qanday faoliyatda e’tibor, mantiqiy fikrlash qobiliyati inson uchun zarurdir, chunki ular muammolarni hal qilishga, qiyin vaziyatlardan chiqish yo‘lini topishga yordam beradi.

Boshlang‘ich sinf o‘quvchilarining mantiqiy tafakkurini shakllantirish maqsadida qiziqarli matematik o‘yinlar, boshqotirmalar, geometrik masala va mashqlar, muammoli arifmetik masalalar, hazil masalalar, matematik mazmundagi topishmoqlardan vosita sifatida foydalanish o‘rinlidir. Mantiqiy o‘yinlar o‘quvchilar bilimini boyitishga ularda aqliy faoliyatni o‘sirishga yordam beradi. Mantiqiy o‘yinlar, boshqa termalar o‘ziga xos xususiyatlarga ega bo‘lib, ulardagi o‘quvchilarni o‘ylashga majbur etadigan sharoit, ularning qiziqarliligi o‘quvchilarda aqliy va ijodiy qobiliyatlarini shakllantirishga yordam beradi. Qiziqarli matematik o‘yinlar, boshqotirmalar o‘quvchilar tafakkurining rivojlanishiga har tomonlama ta’sir etuvchi vosita hisoblanib, ularning yordamida aqliy va irodaviy rivojlanish amalga oshiriladi. Fazoviy hayol, mantiqiy tafakkur maqsadga qaratilganligi va maqsadga intilganlik, amaliy vazifalarni yechish uchun amallarning yo‘llarini mustaqil qidirish va topish bularning hammasi birgalikda matematikani muvaffaqiyatli egallashlari uchun talab qilinadi. Bola maktab ostonasiga qadam qo‘yar ekan, o‘zining avvaldan mavjud

bo‘lgan qiziqishini yo‘qotmaydi, u avvalgidek o‘yinga juda o‘ch bo‘ladi. Hatto qiziqrli masalalar ham bolalarda faollikni uyg‘otib, tafakkurni rivojlantiradi.

Quyida boshlang’ich sinf o‘quvchilarining mantiqiy tafakkurini shakllantirishga oid misol va masalalardan namunalar keltiramiz.

4-misol, 107-bet

1	3	4	5	6	7

$$\text{Red circle} + \text{Blue inverted triangle} + \text{Green rectangle} = ?$$

$$\text{Blue triangle} + \text{Yellow diamond} + \text{Orange trapezoid} = ?$$

$$\text{Blue inverted triangle} + \text{Yellow diamond} + \text{Red circle} = ?$$

4-misol, 122-bet¹



4-misol, 20-bet

Mevalar o‘rnidagi mos sonlarni topamiz va natijalarni hisoblaymiz².

$$\begin{aligned}\text{Apple} + \text{Apple} &= 12 \\ \text{Apple} + \text{Banana} &= 16 \\ \text{Banana} + \text{Cherry} &= 20 \\ \text{Apple} + \text{Banana} + \text{Cherry} &=?\end{aligned}$$

$$\begin{aligned}3 + \text{Apple} &= 7 \\ \text{Grapes} &= 15 - \text{Apple} \\ \text{Apple} &= 1 + \text{Banana} \\ \text{Apple} + \text{Grapes} - \text{Banana} &=?\end{aligned}$$

3-sinf matematika darsligi, 14-betdagи 6-masala³.

¹ Matematika 1-sinf [Matn]: darslik / L.O‘rinboyeva [va boshq.]. – Toshkent: Respublika ta‘lim markazi, 2021 – 160 b.

² Matematika 2-sinf [Matn]: darslik / L.O‘rinboyeva [va boshq.]. – Toshkent: Respublika ta‘lim markazi, 2021. – 192 b.

³ Matematika: 3-sinf uchun darslik / S.Burxonov, O‘.Xudoyorov, Q.Norqulova, N.Ruzikulova, L.Goibova. – T.: «SHARQ», 2019. – 208 b.

Dangasa bola bir sutkaning yarmini uqlash va ovqatlanish, choragini mакtabda bo‘lishga, yana bir choragini o‘yin va televizor ko‘rishga sarfladi. Sutkaning qolgan qismida dars tayyorladi. U necha soat dars tayyorlagan?

124-betdagи 5-masala

Toshbaqa ertalab 17 metrli chuqurlikka tushib ketdi. Har kuni kunduzi 5 metrغا ko‘tariladi, kechasi esa 2 metrغا sirg‘alib pastga tushadi. Toshbaqa necha kunda chuqurlikdan chiqadi?

Yechish:

$$\text{1-kun } 0+5-2=3$$

$$\text{2-kun } 3+5-2=6$$

$$\text{3-kun } 6+5-2=9$$

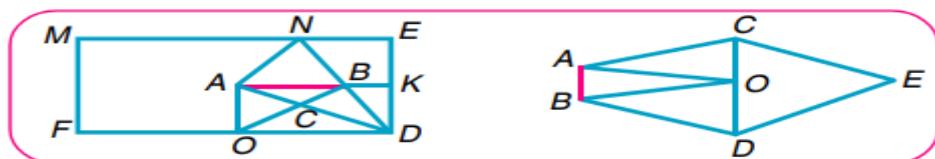
$$\text{4-kun } 9+5-2=12$$

$$\text{5-kun } 12+5=17$$

Javob: 5 kunda

4-sinf matematika darsligи, 86-betdagи 4-masala⁴

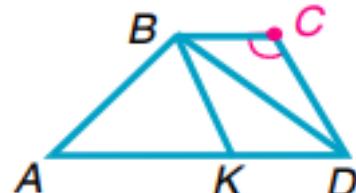
AB kesma tomoni bo‘lgan shakllarning nomlarini ayting:



89-betdagи 4-masala

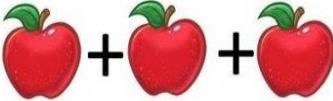
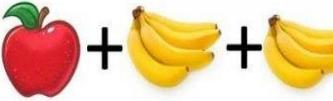
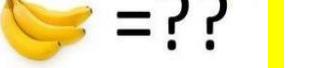
1) C burchakni o‘z ichiga olgan hamma shakllarni yozing.

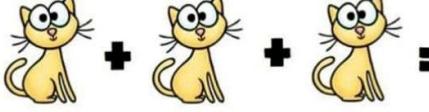
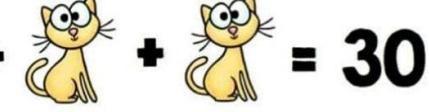
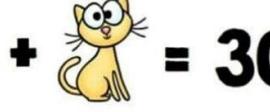
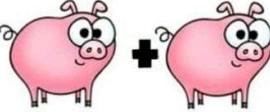
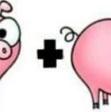
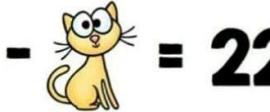
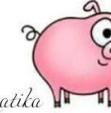
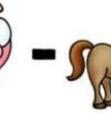
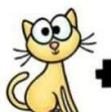
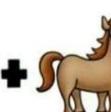
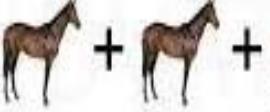
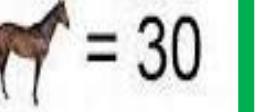
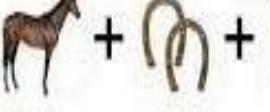
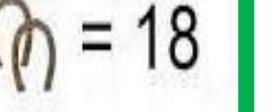
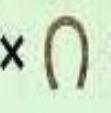
2) BCD va BKD uchburchaklar uchun umumiy bo‘lgan tomonni yozing.



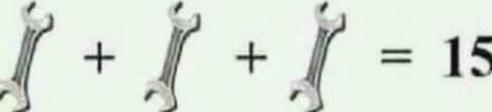
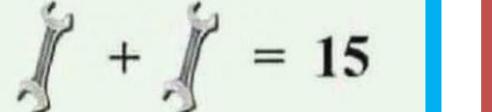
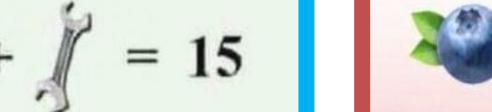
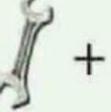
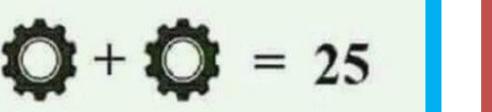
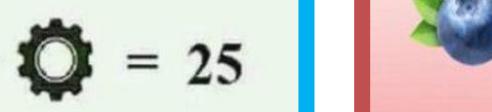
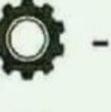
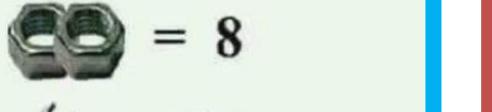
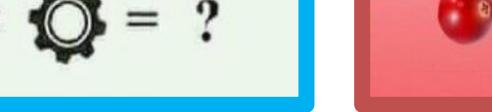
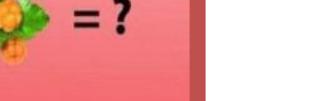
⁴ Matematika: [Matn]: umumiy o‘rtta ta’lim maktabalarining 4- sinfi uchun darslik. / N.U. Bikbayeva. – Qayta ishlangan va to‘ldirilgan 5-nashri. – Toshkent; “O‘qituvchi” NMU, 2020. – 208 b.

Mantiqiy boshqotirmalar

 +  +  = 90  × 2 +  = 60  +  + 8 = 70  +  +  = ?	 +  +  = 30  +  +  = 18  -  = 2  +  +  = ??
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 +  +  = 30  +  -  = 22  -  = 11 <small>@super_materiatika</small>  +  +  = ?	 +  +  = 30  +  +  = 18  -  = 2  +  ×  = ?
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Mantiqiy fikrlash boshqa fanlarga qaraganda matematikani o‘rganish jarayonida

 +  +  = 15  +  +  = 25  -  = 8  +  ×  = ?	 +  +  = 30  +  +  = 18  -  = 2  +  +  = ?
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kuchli rivojlanadi. Aynan shuning uchun

ushbu ishda mantiqiy fikrlashni matematika darslarida rivojlantirish yo‘llarini izladik. Hozirgi kunda maktab o‘quvchilari mantiqiy misol va masalalarni darslikda berilganlarini yechishyapti xolos. Vaholanki, faqat maktab matematika darsliklaridagi mantiqiy masalalarni yechish bilan mantiqiy fikrlash kuchli rivojlanmaydi. Qo‘sishimcha mantiqiy masalalar yechish kerak, buning uchun mакtab o‘qituvchilarida mantiqiy masalalar bazasi shakllangan bo‘lishi lozim. Chunki, o‘quvchilarning yoshi va bilim darajasiga mos mantiqiy masalalarni o‘rgatish maqsadga muvofiq.

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