

# SOAL DAN PEMBAHASAN UJIAN NASIONAL MATEMATIKA SMP MTS

## [Download Complete File](#)

### Soal dan Pembahasan Ujian Nasional Matematika SMP/MTs

#### Soal 1

Sebuah balok berukuran panjang 10 cm, lebar 8 cm, dan tinggi 5 cm. Hitunglah volume balok tersebut!

#### Pembahasan:

Rumus volume balok:  $V = p \times l \times t$   $V = 10 \text{ cm} \times 8 \text{ cm} \times 5 \text{ cm}$   **$V = 400 \text{ cm}^3$**

#### Soal 2

Sebuah prisma alas segitiga siku-siku memiliki alas berukuran 8 cm dan 6 cm, serta tinggi 10 cm. Hitunglah luas permukaan prisma tersebut!

#### Pembahasan:

Luas permukaan prisma:  $L = 2 \times (\text{luas alas} + \text{luas selimut})$

- Luas alas =  $(1/2) \times \text{alas} \times \text{tinggi} = (1/2) \times 8 \text{ cm} \times 6 \text{ cm} = 24 \text{ cm}^2$
- Luas selimut =  $(\text{alas} + \text{lebar}) \times \text{tinggi} = (8 \text{ cm} + 6 \text{ cm}) \times 10 \text{ cm} = 140 \text{ cm}^2$   $L = 2 \times (24 \text{ cm}^2 + 140 \text{ cm}^2)$   **$L = 332 \text{ cm}^2$**

#### Soal 3

Seorang petani memiliki lahan seluas 500 m<sup>2</sup>. Lahan tersebut ditanami jagung dengan jarak antar tanaman 50 cm. Jika setiap tanaman membutuhkan luas 1 m<sup>2</sup>,

berapa banyak tanaman jagung yang dapat ditanam di lahan tersebut?

**Pembahasan:**

Konversi luas lahan:  $500 \text{ m}^2 = 500.000 \text{ cm}^2$  Luas tanaman yang dibutuhkan:  $1 \text{ m}^2 = 10.000 \text{ cm}^2$  Jumlah tanaman jagung:  $= \text{Luas lahan} / \text{Luas tanaman yang dibutuhkan}$   
 $= 500.000 \text{ cm}^2 / 10.000 \text{ cm}^2 = \mathbf{50 \text{ tanaman}}$

**Soal 4**

Sebuah kereta api bergerak dengan kecepatan 80 km/jam. Berapa jarak yang ditempuh kereta api dalam waktu 2 jam?

**Pembahasan:**

Konversi kecepatan:  $80 \text{ km/jam} = 80.000 \text{ m/jam}$  Jarak = Kecepatan  $\times$  Waktu =  $80.000 \text{ m/jam} \times 2 \text{ jam} = \mathbf{160.000 \text{ m}}$

**Soal 5**

Sebuah lingkaran memiliki keliling 28 cm. Hitunglah luas lingkaran tersebut!

**Pembahasan:**

Rumus keliling lingkaran:  $K = 2\pi r$  Rumus luas lingkaran:  $L = \pi r^2$   $28 \text{ cm} = 2\pi r$   $r = 14 \text{ cm}$   $L = \pi \times (14 \text{ cm})^2$   $L = \mathbf{196\pi \text{ cm}^2}$

**Soalan KBAT Sains UPSR: Menguji Kemahiran Berfikir Aras Tinggi**

Soalan KBAT (Kemahiran Berfikir Aras Tinggi) dalam Sains UPSR direka untuk menilai keupayaan murid memahami konsep sains secara mendalam dan mengaplikasikan pengetahuan mereka kepada situasi kehidupan sebenar. Soalan-soalan ini menguji kemahiran murid berfikir secara kritis, kreatif, dan inovatif.

**1. Soalan KBAT: Aplikasi Konsep**

**Soalan:**

Apakah yang akan berlaku jika kita meletakkan ais di dalam air panas?

**Jawapan:** \_\_\_\_\_

Ais akan mencair dan berubah menjadi air kerana air panas mempunyai suhu yang lebih tinggi daripada ais.

## **2. Soalan KBAT: Analisis**

### **Soalan:**

Seorang murid menjalankan eksperimen untuk menguji pertumbuhan kacang. Dia menanam kacang dalam dua bekas yang berbeza, satu dengan tanah dan satu lagi dengan air. Hasilnya menunjukkan bahawa kacang dalam tanah tumbuh lebih tinggi daripada kacang dalam air. Apakah faktor lain yang mungkin mempengaruhi pertumbuhan kacang?

### **Jawapan:**

- Jumlah cahaya matahari
- Kandungan nutrien dalam tanah
- Kualiti air

## **3. Soalan KBAT: Penilaian**

### **Soalan:**

Sebuah syarikat menghasilkan sejenis deodoran baharu yang mendakwa dapat menghentikan peluh selama 24 jam. Apakah cara terbaik untuk menguji dakwaan ini?

### **Jawapan:**

- Melakukan ujian klinikal dengan sekumpulan peserta
- Melakukan ujian makmal menggunakan peralatan khusus

## **4. Soalan KBAT: Sintesis**

### **Soalan:**

Bagaimana kita boleh menggunakan tenaga solar untuk menghasilkan elektrik? Terangkan prosesnya.

---

**Jawapan:**

- Panel solar menangkap sinar matahari dan menukarkannya menjadi tenaga elektrik
- Tenaga elektrik yang dihasilkan disimpan dalam bateri
- Bateri membekalkan kuasa kepada peralatan dan peranti

**5. Soalan KBAT: Kreativiti**

**Soalan:**

Reka dan terangkan rancangan untuk menunjukkan cara kerja sistem peredaran darah manusia.

**Jawapan:**

- Menunjukkan pam jantung dengan menggunakan picagari
- Menggunakan hos dan injap untuk menunjukkan saluran darah
- Menggunakan cecair berwarna sebagai darah

**Word Search Puzzles: 6 Frequently Asked Questions**

Word search puzzles are a popular pastime enjoyed by people of all ages. While they may seem simple, there are a few common questions that often arise about these mind-boggling games. Here are the answers to 6 frequently asked questions about word search puzzles:

**1. What is the objective of a word search puzzle?**

The objective of a word search puzzle is to find and circle all of the hidden words listed in a separate box. The words can be hidden horizontally, vertically, or diagonally, and they can read forward or backward.

**2. How do you find words in a word search puzzle?**

To find words in a word search puzzle, start by scanning the grid for the first letter of the word you're looking for. Once you find the first letter, follow the path of the word until you reach the end. If you get stuck, try scanning the grid in different directions.

### **3. What is a blackout word search puzzle?**

A blackout word search puzzle is a variation on the traditional word search where the goal is to circle all of the letters in the grid that make up the hidden words. Once all of the letters are circled, the grid will be "blackened out."

### **4. What is the best way to solve a word search puzzle?**

There are a few different strategies that can help you solve a word search puzzle more efficiently. One strategy is to start with the shorter words and work your way up to the longer ones. Another strategy is to focus on specific sections of the grid at a time.

### **5. What are the benefits of solving word search puzzles?**

Solving word search puzzles can provide a number of benefits, including:

- Improved vocabulary
- Enhanced problem-solving skills
- Increased attention to detail
- Reduced stress and improved mood

## **Conclusion**

Word search puzzles are a great way to challenge your mind and have some fun. By following these tips, you can improve your chances of success and enjoy the many benefits that these puzzles have to offer.

## **Toto IV: Wikipedia**

### **What is Toto IV?**

Toto IV is the fourth studio album by American rock band Toto, released in 1982. It was the band's most commercially successful album, selling over six million copies worldwide.

### **What are the notable songs from Toto IV?**

The album spawned several hit singles, including "Rosanna," "Africa," and "I Won't Hold You Back." These songs are known for their catchy melodies, intricate harmonies, and memorable lyrics.

### **What are some of the critical accolades received by Toto IV?**

Toto IV received critical acclaim for its musicianship, songwriting, and production. It won six Grammy Awards, including Album of the Year and Record of the Year for "Rosanna." The album is also considered one of the greatest soft rock albums of all time.

### **What was the inspiration behind the album?**

Toto IV was inspired by a variety of sources, including jazz, pop, classical, and R&B. The band members drew on their diverse musical backgrounds to create a cohesive and eclectic album.

### **What is the legacy of Toto IV?**

Toto IV remains one of the most iconic albums of the 1980s. It showcased the band's versatility and songwriting prowess. The album's hit singles continue to be played on radio stations around the world and have been covered by numerous artists. Toto IV has had a lasting impact on the music industry and is considered a classic of rock music.

[soalan kbat sains upsr](#), [word search puzzles 6](#), [toto iv wikipedia](#)

mitsubishi tl 52 manual schwinn recumbent exercise bike owners manual manual  
therapy masterclasses the vertebral column 1e manual therapy masterclasses s  
manual york diamond 90 furnace electronic government 5th international conference  
egov 2006 krakow poland september 4 8 2006 proceedings essentials of anatomy  
and physiology 5th edition esercizi spagnolo verbi ole kentucky pastor people and  
poems john deere x700 manual the fifty states review 150 trivia questions and  
answers premkumar basic electric engineering ducati monster 750 diagram manual  
philips intellivue mp20 user manual nursing diagnosis manual planning

individualizing and documenting client care postcolonial agency critique and  
 constructivism plateaus new directions in deleuze studies eup mental health nursing  
 made incredibly easy incredibly easy series by debbie evans helen allen 2009  
 applications typical application circuit hands garmin g1000 line maintenance and  
 configuration manual mercedes w209 repair manual ontarios health system key  
 insights for engaged citizens professionals and policymakers solution manual bartle  
 caterpillar engines for forklifts guide to unix using linux chapter 4 review answers  
 casenote legal briefs property keyed to kurtz and hovencamp 5e the universe and  
 teacup mathematics of truth beauty kc cole honda cbx 750f manual adobe air  
 programming unleashed dimitrios gianninas  
 reventoven 620manual iec60950free download10th gradevocabulary  
 answerslearningin adulthoodacomprehensive guidetoyota rav419962005  
 chiltonstotal carcare repairmanual paperback2009 1ed chiltoncommitted  
 lovestoryelizabeth gilbertecu wiringdiagramtoyota corolla4a fesharphdtv  
 manualapplied partialdifferential equations4thedition solutionsmanual  
 2000heritagesoftail servicemanual1997 gmcsafarirepair manualdiagnosticimaging  
 musculoskeletalnontraumatic disease2013 kenwortht660 manualcaliforniasoul  
 musicof africanamericansin thewestmusic ofthe africandiaspora  
 electricalengineeringhandbook siemenssuzukiliana workshopmanual 200120022003  
 20042005 20062007haynes alfaromeo 147manualmedical transcriptionguidedos  
 anddongs 2ebajaj pulsar180 enginerepair hackinghacking boxseteverything youmust  
 knowabout hackinghacking forbeginnerssinger sewingmachine repairmanual  
 7430autocad plant3d2014 usermanual emiratesgroomingmanual ethicalproblems  
 inthe practiceof lawmodel rulesstate variationsand practicequestions iec61439  
 fulldocument handbookof tourismandquality ofliferesearch enhancingthelives  
 oftourists andresidents ofhost communitiesinternational handbooksofquality oflife  
 repairmanual ofnissanxtrail 2005frvankel 7000operationmanual studyguidethermal  
 energyanswer keyfreebuick rendezvousrepair manualuml 2toolkit authorhans  
 erikerikssonoct 2003renault lagunaservicemanual 99ancient gaza2  
 volumesetcambridge librarycollection egyptology