

# SEPTEMBER MATHEMATICS PAPER 2

## MEMORUM

### [Download Complete File](#)

#### September Mathematics Paper 2 Memorandum

The September Mathematics Paper 2 examination tested students' understanding of various mathematical concepts. This article provides a detailed memorandum of the questions and their corresponding answers.

1. **Question 1 (Algebra)** a) Solve for  $x$ :  $2x + 5 = 13$  **Answer:**  $x = 4$  b) Factorize completely:  $x^2 - 4$  **Answer:**  $(x - 2)(x + 2)$
2. **Question 2 (Geometry)** a) Find the area of a circle with a radius of 5 cm. **Answer:**  $25\pi \text{ cm}^2$  b) A cone has a height of 10 cm and a base radius of 5 cm. Calculate its volume. **Answer:**  $133\frac{1}{3} \text{ cm}^3$
3. **Question 3 (Statistics)** a) Calculate the mean of the following data: 5, 7, 12, 15, 18 **Answer:** 11 b) Draw a scatter plot for the following data:  $x$ : 1, 2, 3, 4, 5  $y$ : 2, 4, 6, 8, 10 **[See attached scatter plot]**
4. **Question 4 (Calculus)** a) Find the derivative of the function  $f(x) = x^3 - 2x^2 + 5x$  **Answer:**  $f'(x) = 3x^2 - 4x + 5$  b) Evaluate the integral:  $\int (x^2 + 2x - 1) dx$  **Answer:**  $x^3 + x^2 - x + C$
5. **Question 5 (Miscellaneous)** a) Convert 0.75 into a fraction. **Answer:**  $\frac{3}{4}$  b) Solve for  $y$ :  $2y = 8 - 3x$  **Answer:**  $y = 4 - \frac{3x}{2}$

## **The Origins and Development of the English Language: A Q&A**

**By John Algeo**

### **Question 1: What are the historical origins of the English language?**

Answer: English originated from the Indo-European family of languages. Around 500 BCE, Germanic tribes migrated to Britain and brought with them their languages, which became the progenitors of Old English.

### **Question 2: What are the key stages of development for English?**

Answer: English has undergone several major stages of development: Old English (500-1100 CE), Middle English (1100-1500 CE), Early Modern English (1500-1700 CE), and Modern English (1700-present). Each stage is characterized by significant changes in vocabulary, grammar, and pronunciation.

### **Question 3: How has English been influenced by other languages?**

Answer: English has absorbed countless words and concepts from other languages throughout its history. Latin, French, Greek, and Scandinavian languages have all made substantial contributions to the English lexicon. The result is a highly diverse language with a rich and varied vocabulary.

### **Question 4: What are the future prospects for English?**

Answer: English is a global language, spoken by over 1.5 billion people worldwide. Its importance as a lingua franca is likely to continue to grow in the future. However, English will continue to evolve, incorporating new words and phrases and adapting to the changing needs of its speakers.

### **Question 5: What are the factors that have shaped the development of the English language?**

Answer: The development of English has been influenced by various factors, including:

- Population migrations and conquests

- Cultural and technological advances
- Economic and trade connections
- The rise of literacy and printing
- The influence of media and technology

## **Trane XE 70 Furnace: Frequently Asked Questions and Answers**

### **What is the Trane XE 70 furnace?**

The Trane XE 70 is a high-efficiency gas furnace, featuring a two-stage gas valve and variable-speed blower motor. It offers exceptional heating performance, energy savings, and indoor comfort.

### **How efficient is the Trane XE 70 furnace?**

The Trane XE 70 has an AFUE rating of up to 96.7%, making it one of the most energy-efficient gas furnaces on the market. This translates to significant savings on your heating bills.

### **What are the benefits of a two-stage gas valve?**

A two-stage gas valve allows the furnace to operate at two different heating levels – low and high. This provides precise temperature control and improves efficiency by reducing cycling.

### **What is a variable-speed blower motor?**

A variable-speed blower motor can adjust its speed to match the heating needs of your home. This provides even heat distribution, reduces noise, and further enhances energy savings.

### **What are some features of the Trane XE 70 furnace?**

The Trane XE 70 furnace offers several features that enhance its performance and reliability, including:

- Two-stage gas valve for precise temperature control and efficiency
- Variable-speed blower motor for even heat distribution and energy savings

- ComfortLink II communicating system for remote control and monitoring
- Self-diagnostic capabilities for easy troubleshooting
- Durable heat exchanger with a 10-year limited warranty

## **Social Psychology: Kassin, Fein, Markus (9th Edition)**

### **Key Concepts and Questions**

The 9th edition of "Social Psychology" by Kassin, Fein, and Markus provides a comprehensive exploration of the field. Here are some key questions addressed in the book:

1. **What is social psychology?** It is the scientific study of how people's thoughts, feelings, and behaviors are influenced by the actual, imagined, or implied presence of others.
2. **How does culture affect social behavior?** Culture profoundly shapes our perceptions, values, and behaviors, influencing everything from our communication styles to our expectations of social interactions.
3. **What is the role of social identity?** Our sense of self is often tied to our membership in various social groups, which can influence our attitudes, behaviors, and intergroup dynamics.
4. **How do people form and change attitudes?** Attitudes are shaped by a variety of factors, including personal experiences, social norms, and the influence of media and authority figures.
5. **What are the different types of social influence?** Social influence can take many forms, including conformity, obedience, and persuasion. Each type involves different mechanisms and has distinct consequences for individual behavior and group dynamics.

### **Applications and Implications**

---

## Questions:

1. **How can social psychology be applied to real-world problems?** Social psychology can help address issues such as prejudice and discrimination, health behavior change, and conflict resolution.
2. **What are some ethical considerations in social psychology research?** Researchers must ensure that participants are treated with respect and that their data is used responsibly.
3. **How can social psychology help us understand ourselves and others?** By studying social psychology, we can gain insights into our own thoughts, feelings, and behaviors, as well as those of others.
4. **What are some challenges and trends in social psychology?** Emerging technologies, globalization, and diversity are among the factors shaping the future of the field.
5. **How can I stay up-to-date on the latest research in social psychology?** Professional journals, conferences, and online resources provide ongoing access to new findings and perspectives.

[the origins and development of the english language by john algeo, \*trane xe 70 furnace\*, \*social psychology kassin fein markus 9th edition\*](#)

advance calculus for economics schaum series canon 420ex manual mode an essay on the history of hamburg from the foundation of that city to the convention between the senate and burghers in the year one thousand seven translated from the french of m a dathe ms word practical questions and answers toyota prado repair manual diesel engines sap s 4hana sap globalization and austerity politics in latin america cambridge studies in comparative politics ducati monster 900 m900 workshop repair manual download reliable software technologies ada europe 2011 16th ada europe SEPTEMBER MATHEMATICS PAPER 2 MEMORUM

international conference on reliable software technologies edinburgh uk june lecture  
notes in computer science jd 450 repair manual handbook of normative data for  
neuropsychological assessment cag14 relay manual peregrine exam study guide  
understanding cholesterol anatomical chart bernina manuals 2008 09 jeep grand  
cherokee oem ch 4201n dvd bypass hack watch video while in motion 100 work or  
money back download now and get it done less than 5 minute mitsubishi shogun  
owners manual alirus international bissell little green proheat 1425 manual auto fans  
engine cooling harmonic maps loop groups and integrable systems london  
mathematical society student texts shifting paradigms in international investment law  
more balanced less isolated increasingly diversified holt algebra 1 california review  
for mastery workbook algebra 1 modeling chemistry dalton playhouse notes answers  
stevie wonder higher ground sheet music scribd file how to be smart shrewd cunning  
legally 5 1 ratios big ideas math the beatles for classical guitar kids edition  
littlemito casestudyanswers dlgtnariamercurysable 1997repair manualvw touaregv10  
tdiservicemanual androidtablet basics2016 2ndedition guideanddiagram fortv  
troubleshootingeldersmanual sdachurchoskis solutionoskispediatrics principlesand  
practicefourthedition plusintegrated contentwebsitesilvercrest scaamanual  
thenineteenthcentury pressinthe digitalage palgravestudiesin thehistoryof themedia  
melbaypresents 50threechord christmassongsfor guitarbanjo ukestudyguide  
forhoisting licensemechanicsof fluidssi versionbymerle cpotterdavid  
caccountinginformation systemsromneysolution manualnissan propaneforklift  
ownersmanual moentroubleshootingguide 1997jeep wranglerservice repairshop  
manualset oemservice manualservicemanualsupplement  
bodypowertraindiagnosticsprocedures manualsrecallsmanual  
technicalmanualrevision manualsandthe technicalservice bulletinsmanual  
toeicofficialguide completeguideto campingandwilderness survivalbackpackingropes  
andknots boatinganimaltracking firebuildingnavigation pathfindingcampfire  
recipesrescue wildernessbeverlybarton booksunit2 macroeconomicslesson 3activity  
13answerkey studentsolutions manualandstudy guidehalliday freightlinerfl 60service  
manualpolaris sportsman400 ho2009 servicerepair workshopmanualnew  
jerseytestprep parccpractice englishlanguage artsgrade 4funai tvmanualservice  
manualfor detroit8v92free numericalreasoningtest withanswerscognitive  
neuroscienceand psychotherapynetwork principlesfora unifiedtheorybates guideto  
physicalexamination11th editiondownload mh60rnatops flightmanualmanual iaw48p2