

Wiring a bg garage unit Workbook

wiring a bg garage unit is a task that requires careful planning, technical knowledge, and adherence to safety standards. Whether you're installing a new garage unit or upgrading an existing system, understanding the wiring process is essential to ensure reliable operation and safety. Proper wiring not only powers the garage unit but also integrates it with your home's electrical system, allowing for features such as remote control, automation, and safety mechanisms. This in-depth guide aims to walk you through the key steps, considerations, and best practices involved in wiring a bg garage unit, from preliminary preparations to final testing.

Understanding the Basics of a BG Garage Unit

What is a BG Garage Unit?

A BG garage unit typically refers to a garage door opener or motorized system manufactured or branded under BG (British Gas) or similar brands. These units are designed to automate the opening and closing of garage doors, providing convenience and security. They usually consist of a motor, control panel, remote controls, safety sensors, and wiring connections.

Components of a Garage Door Wiring System

Understanding the main components helps in grasping the wiring process:

- **Power Supply:** Provides electrical power to the unit, usually 110V or 220V AC.
- **Control Panel:** The user interface that controls the operation of the garage door.
- **Motor Unit:** Drives the mechanical parts to open or close the door.
- **Remote Controls:** Wireless devices to operate the garage door remotely.
- **Safety Sensors:** Infrared sensors that prevent the door from closing on obstructions.
- **Limit Switches:** Devices that determine open and close positions.

Preparations Before Wiring a BG Garage Unit

Gather Necessary Tools and Materials

Before starting, ensure you have:

- Voltage tester or multimeter

- Screwdrivers (flathead and Phillips)
- Wire strippers and cutters
- Electrical tape
- Wire connectors or terminal blocks
- Appropriate gauge wiring (usually 14/2 or 12/2)
- Conduit or cable protection (if necessary)
- Power outlet or circuit breaker dedicated to garage
- Mounting hardware for sensors and control panels

Check Local Electrical Codes and Regulations

It's crucial to comply with local electrical codes:

- Determine the correct circuit requirements for garage door openers.
- Ensure that the wiring is protected and grounded properly.
- Obtain necessary permits, if required.
- Consider hiring a licensed electrician if unsure.

Ensure Power is Disconnected

Safety is paramount:

- Turn off the power at the circuit breaker before beginning any wiring work.
- Use a voltage tester to confirm that the circuit is de-energized.

Step-by-Step Guide to Wiring a BG Garage Unit

1. Install Power Supply and Outlet

- Identify a suitable location near the garage door for the power outlet.
- Install a dedicated circuit breaker if necessary.
- Mount an outlet or junction box according to local codes.
- Ensure grounding is properly connected.

2. Run Power Cables to the Garage Door Opener

- Use appropriate gauge wire (typically 14/2 or 12/2).

- Run conduit or cable along the ceiling or wall, securing it with clips.
- Leave enough slack for connections and future maintenance.

3. Connect Power to the Garage Door Opener

- Open the control panel of the garage opener.
- Connect the live (hot) wire to the designated terminal.
- Connect the neutral wire to its terminal.
- Connect the ground wire to the grounding terminal.
- Use wire connectors to secure all connections.

4. Wire the Safety Sensors

- Mount safety sensors approximately 6 inches above the ground on either side of the garage door.
- Run sensor wires back to the control panel.
- Connect the sensor wires to the designated terminals, usually marked as "Safety" or "Photo Eye."
- Ensure correct polarity if required.

5. Connect Wall Control Panel and Remote Controls

- Mount the wall control panel at a convenient height inside the garage.
- Run wiring from the control panel to the control unit.
- Connect according to manufacturer instructions, typically involving terminals labeled "Wall Control" or "Wall Button."
- Pair remote controls as per the manufacturer's procedure.

6. Adjust Limit Switches and Force Settings

- Use the manufacturer's adjustment screws to set the open and close limits.
- Test the door's full range of motion.
- Adjust force settings to ensure smooth operation without overexertion.

7. Final Inspection and Testing

- Double-check all wiring connections for security and correctness.
- Restore power at the breaker.
- Test the garage door opener using the wall control and remote.
- Verify safety sensors are functioning correctly?door should reverse if obstructions are detected.
- Confirm that limit switches stop the door at the fully open and closed positions.

Additional Considerations and Tips

Ensuring Safety and Compliance

- Always adhere to local electrical codes.
- Use appropriate weatherproof wiring and enclosures if wiring outside or in damp areas.
- Keep wiring away from moving parts and pinch points.
- Use proper grounding to prevent electrical hazards.

Automation and Smart Integration

- Many BG garage units can be integrated with home automation systems.
- Connect wiring for smart controls, Wi-Fi modules, or additional sensors as per manufacturer specifications.
- Ensure that any additional wiring does not interfere with safety sensors.

Maintenance and Troubleshooting

- Regularly inspect wiring for wear or damage.
- Test safety sensors periodically.
- Check connections if the unit malfunctions.
- Consult the user manual for troubleshooting specific issues.

Hiring a Professional

While wiring a garage unit can be straightforward for those with electrical experience, it is often safer and more compliant to hire a licensed electrician, especially for complex or high-voltage wiring.

Conclusion

Wiring a BG garage unit involves careful planning, appropriate tools, adherence to electrical standards, and a methodical approach. By understanding the components involved, preparing

properly, and following a structured wiring process, you can ensure your garage door operates safely, reliably, and efficiently. Remember that safety should always be the top priority ? when in doubt, consult a professional electrician to handle or verify the wiring work. Proper installation not only enhances convenience but also prolongs the lifespan of your garage system and ensures safety for all users.

Wiring a BG Garage Unit: A Comprehensive Guide for Safe and Effective Installation

Wiring a BG garage unit is a crucial task that combines safety, precision, and technical know-how. Whether you're installing a new garage door opener or upgrading an existing system, understanding the wiring process ensures the unit functions correctly and safely. Proper wiring not only guarantees smooth operation but also minimizes risks of electrical hazards, damage, or malfunction. In this guide, we'll walk you through the essential steps, tools, and best practices for wiring a BG garage unit, empowering both DIY enthusiasts and professional installers to approach the task with confidence.

Understanding Your BG Garage Unit

Before diving into wiring specifics, it's important to familiarize yourself with the components of your BG garage system. Typically, a BG garage unit comprises:

- Motor and Drive System: The main mechanism that opens and closes the garage door.
- Control Panel/Wall Console: The interface for manual operation.
- Remote Controls: Wireless devices for remote operation.
- Safety Sensors: Infrared sensors that prevent the door from closing on objects or people.
- Power Supply: Usually a standard 120V AC power source.
- Limit Switches: Devices that determine the fully open or closed position.
- Wiring Harnesses: Connectors that link all components.

Understanding each component's role and wiring points is essential for a successful installation or upgrade.

Safety Precautions Before You Begin

Wiring tasks involve electrical currents that can pose safety risks. Always prioritize safety by following these precautions:

- Disconnect Power: Turn off the main circuit breaker before starting any wiring work.
- Use Proper Tools: Insulated screwdrivers, wire strippers, voltage testers, and wire nuts are

essential.

- Follow Local Electrical Codes: Familiarize yourself with local regulations to ensure compliance.
- Work in a Dry Environment: Avoid working in wet or damp conditions.
- Wear Safety Gear: Gloves and safety glasses help prevent injury.
- Consult a Professional: If unsure about electrical wiring, seek a licensed electrician's assistance.

Tools and Materials Needed

Having the right tools and materials ensures a smooth wiring process:

- Tools:
 - Insulated screwdriver set
 - Wire strippers
 - Voltage tester or multimeter
 - Pliers
 - Drill (if mounting new components)
 - Level (for proper alignment)
- Materials:
 - Appropriate gauge electrical wire (typically 14- or 16-gauge)
 - Wire nuts or terminal connectors
 - Electrical tape
 - Conduit or cable clamps
 - Power outlet (if not existing)
 - Remote control batteries (if replacing or installing new remotes)

Step-by-Step Guide to Wiring a BG Garage Unit

- Planning and Layout

Start by planning your wiring route. Consider:

- The location of the power outlet and circuit breaker.
- The placement of the control panel and safety sensors.
- The shortest, most direct wiring path to minimize voltage drops.
- Securing wiring away from moving parts or areas prone to moisture.

Create a wiring diagram to visualize connections and ensure all components are correctly linked.

- Power Connection

Connect the Garage Unit to Power:

- Locate an appropriate electrical outlet near the garage ceiling or wall.
- If no outlet exists, install a dedicated 120V circuit with a grounded outlet, following local electrical codes.
- Use a heavy-duty extension cord temporarily if needed, but a permanent wiring solution is recommended.

Wiring Steps:

- Turn off the main power.
- Run a cable from the circuit breaker to the garage unit's power junction box.
- Use conduit or clamps to secure the wiring.
- Connect the hot (black), neutral (white), and ground (green or bare copper) wires to the respective terminals on the garage unit's power connector.

- Connecting the Control Panel and Remote Controls

Wiring the Wall Control:

- Most BG units use a two-wire connection for the wall control.
- Identify the control panel wiring terminals on the garage unit.
- Connect the wires from the control panel to these terminals, ensuring correct polarity if specified.

Programming Remote Controls:

- Follow the manufacturer's instructions to sync remote controls with the garage unit.
- Typically, this involves pressing a learn button on the unit and then activating the remote.

- Installing and Wiring Safety Sensors

Safety sensors are vital for preventing accidents:

- Mount the sensors on either side of the garage door, roughly 6 inches above the ground.
- Run low-voltage wiring (usually 22-18 AWG) from each sensor to the control board.
- Connect the sensor wires to the designated safety sensor terminals.
- Ensure the sensors are aligned and free of obstructions.

- Wiring Limit Switches and Additional Components

Limit switches control how far the door opens and closes:

- Install limit switches at appropriate positions on the door track.
- Connect their wires to the control board as per manufacturer instructions.
- Adjust switches to set the fully open and closed positions.

Additional components like light bulbs or external buttons can be wired in parallel with the control panel or wall switch, following the wiring diagram.

Final Checks and Testing

Once all wiring is complete:

- Double-check all connections against the wiring diagram.
- Ensure wiring is secured and insulated with wire nuts or electrical tape.
- Turn the power back on at the circuit breaker.
- Use a voltage tester to verify power at the unit.
- Test the garage door operation with the wall control and remote.
- Check safety sensors for proper alignment and operation.
- Adjust limit switches if necessary to ensure smooth door travel.

Troubleshooting Common Wiring Issues

- Garage door not responding: Verify power supply, remote sync, and wiring connections.
- Sensors not working: Check wiring, alignment, and sensor cleanliness.

- Door reverses unexpectedly: Recheck limit switch settings and wiring.
- No response from wall control: Inspect wiring connections and control panel functionality.

Conclusion

Wiring a BG garage unit is a task that requires attention to detail, adherence to safety protocols, and a good understanding of electrical systems. Proper wiring ensures your garage door operates smoothly, safely, and reliably. Whether you're performing a simple upgrade or installing a new system, following this comprehensive guide will help you achieve professional results. Remember, when in doubt, consulting a licensed electrician can ensure your installation meets all safety standards and local codes. With patience and precision, you'll enjoy the convenience and security of a properly wired BG garage unit for years to come.

Question What tools do I need to wire a BG garage unit safely? You will need a screwdriver, wire stripper, voltage tester, wire connectors, and possibly a drill. Always ensure the power is turned off before beginning any wiring work and follow the manufacturer's instructions for your specific BG garage unit. **Answer** How do I identify the correct wires when wiring my BG garage door opener? Typically, the wires include a power wire (black or red), a neutral wire (white), and a ground wire (green or bare). Refer to the wiring diagram provided with your BG unit to ensure correct connections. Using a voltage tester can help verify live wires before connecting. Can I wire my BG garage unit directly to a standard wall outlet? Yes, many BG garage units are designed to be plugged into a standard outlet. However, if your unit requires direct wiring, ensure it's connected to a proper circuit with the correct voltage and current ratings, following local electrical codes. What precautions should I take when wiring a BG garage unit? Always turn off the power supply at the circuit breaker before starting. Use insulated tools, verify no voltage is present with a tester, and follow the manufacturer's wiring instructions carefully. If unsure, consult a professional electrician. How do I troubleshoot wiring issues with my BG garage door opener? Check all wire connections for tightness and proper placement according to the wiring diagram. Use a multimeter to test voltage at connection points. If the unit still doesn't operate correctly, verify that the wires are not damaged or crossed and consult the user manual for troubleshooting tips. Is professional installation recommended for wiring a BG garage unit? While some experienced DIYers can wire a BG garage unit safely, professional installation is recommended if you're unfamiliar with electrical wiring, to ensure safety and compliance with local electrical codes.

Related keywords: garage door wiring, BG garage unit installation, garage door opener wiring, wiring diagram BG garage, connecting BG garage unit, garage door opener setup, wiring instructions BG garage, electrical wiring garage door, BG remote wiring, garage unit electrical hookup

KOM UNIT 2

Understanding Kom Unit 2: An In-Depth Exploration

kom unit 2 is a term that often appears in various contexts, ranging from educational curricula to specific organizational units within different sectors. To fully grasp its significance, it is essential to analyze its origins, applications, and the core components that define it. Whether you are a student, a professional, or an enthusiast seeking comprehensive knowledge, this article aims to provide a detailed overview of Kom Unit 2, shedding light on its multifaceted nature.

Origins and Definition of Kom Unit 2

Historical Background

The term "Kom" can originate from different languages and disciplines, but in many contexts, it is associated with organizational or military terminology. The designation "Unit 2" suggests a subdivision within a larger structure, often representing a specific department, module, or functional segment.

Historically, the concept of dividing entities into units or modules has been prevalent across various fields to improve specialization, efficiency, and clarity. Kom Unit 2 may stem from such organizational strategies, tailored to meet the needs of particular industries or educational frameworks.

What Is Kom Unit 2?

At its core, Kom Unit 2 refers to the second segment or module within a broader system called "Kom." Depending on the setting, "Kom" could stand for:

- A course module in an academic program
- A specific operational unit within an organization
- A part of a technical system or software

In most contexts, Kom Unit 2 signifies a structured component designed to build upon foundational knowledge or functions established in Unit 1, offering advanced concepts, skills, or responsibilities.

Application Areas of Kom Unit 2

Educational Contexts

Within academic curricula, especially in technical and vocational training, Kom Unit 2 often forms part of a modular learning program. For example:

- **Technical Courses:** It might cover advanced topics like system design, programming, or engineering principles.
- **Language Learning:** It could involve intermediate grammar, vocabulary expansion, and conversational skills.
- **Professional Development:** Focused on practical applications and real-world scenarios.

In such settings, successfully completing Kom Unit 2 indicates progression to more complex topics, preparing learners for further modules or certification.

Organizational and Military Usage

In organizational or military terminology, Kom Unit 2 could refer to:

- A specific team or squad responsible for particular operational tasks
- A subdivision within a command structure
- A specialized task force focusing on a defined mission

Understanding its role within the larger framework is crucial for effective coordination and operational success.

Technical and Software Systems

In technical systems, especially in software or hardware configurations, Kom Unit 2 might denote:

- A particular module or component within a system architecture
- A version or iteration of a software package
- A functional segment responsible for specific operations, such as data processing or communication

Developers and engineers rely on this segmentation for troubleshooting, upgrades, and system optimization.

Core Components of Kom Unit 2

Key Features and Characteristics

While the specifics can vary considerably based on the context, some common features of Kom Unit 2 include:

- **Progressive Complexity:** It builds upon foundational knowledge from Unit 1, introducing more advanced concepts.
- **Specialized Content:** Focused on particular skills or topics relevant to the field.
- **Structured Learning or Operation:** Organized into modules, lessons, or tasks to facilitate systematic progress.
- **Assessment Criteria:** Includes evaluations to measure understanding or performance.
- **Integration with Other Units:** Designed to connect seamlessly with previous and subsequent modules or units.

Skills and Knowledge Acquired

Depending on the domain, students or professionals engaging with Kom Unit 2 can expect to develop:

- Deepened understanding of core principles
- Practical skills applicable to real-world scenarios
- Problem-solving abilities
- Technical proficiency in specific tools or systems
- Critical thinking and analytical skills

Importance of Kom Unit 2

Advancement in Learning and Career

Completing Kom Unit 2 often signifies a significant step forward in a learning journey or career path. It prepares individuals for:

- Handling more complex tasks
- Assuming greater responsibilities
- Specializing in niche areas
- Preparing for certification exams or professional accreditation

Operational Efficiency and Effectiveness

Within organizations, the proper functioning of Kom Unit 2 ensures:

- Enhanced productivity
- Better coordination among units
- Improved quality of outputs
- Streamlined workflows

Challenges and Considerations in Implementing Kom Unit 2

Potential Challenges

Implementing or mastering Kom Unit 2 can involve obstacles such as:

- Complexity of content or tasks
- Resource limitations
- Lack of adequate training or support
- Resistance to change within organizations
- Technological barriers

Strategies for Successful Deployment

To overcome these challenges, consider:

- Providing comprehensive training programs
- Ensuring clear communication of objectives and expectations
- Allocating sufficient resources and infrastructure
- Encouraging feedback and continuous improvement
- Integrating support systems for learners or operators

Future Outlook of Kom Unit 2

Emerging Trends

With advancements in technology and education, Kom Unit 2 is expected to evolve in several ways:

- Incorporation of digital tools and e-learning platforms
- Increased emphasis on practical, hands-on experiences
- Integration of artificial intelligence and automation
- Customization of modules to cater to individual needs
- Enhanced assessment and feedback mechanisms

Potential Developments

Future developments might include:

- More seamless integration with other units and systems
- Adaptive learning pathways
- Greater focus on interdisciplinary skills
- Expansion into new fields and industries

Conclusion

In summary, **kom unit 2** represents a pivotal stage within various frameworks, whether educational, organizational, or technical. Its significance lies in fostering deeper understanding, enhancing skills, and supporting progression. As industries and educational paradigms continue to evolve, so too will the role and structure of Kom Unit 2, adapting to meet emerging challenges and opportunities. For individuals and organizations alike, mastering this unit can serve as a foundation for sustained growth and success in their respective domains.

Kom Unit 2 is a pivotal component in understanding the broader framework of the Kom series, offering a nuanced look into the core principles, practical applications, and strategic implications of the second module. Whether you're a newcomer seeking foundational insights or an experienced professional aiming to deepen your knowledge, this comprehensive guide will walk you through everything you need to know about Kom Unit 2, from its key features to its real-world relevance.

Introduction to Kom Unit 2

Kom Unit 2 builds upon the foundational concepts introduced in the initial module, delving into more advanced topics that are critical for mastery. It emphasizes not just theoretical understanding but also practical application, making it essential for anyone looking to leverage Kom's full potential in their workflows or strategic planning.

In essence, Kom Unit 2 serves as a bridge between introductory knowledge and expert-level proficiency, equipping users with the tools and insights necessary to navigate complex scenarios efficiently.

Overview of Key Concepts in Kom Unit 2

Expanded Functionality and Features

While Kom Unit 1 focused on basic setup and introductory features, Kom Unit 2 explores advanced

functionalities, including:

- Enhanced customization options
- Deeper integration capabilities with other tools
- Advanced data analysis techniques
- Automation of complex workflows

Core Principles Reinforced

The module emphasizes several core principles:

- Flexibility: Adapting Kom to diverse environments
- Scalability: Managing increasing data volume and complexity
- Efficiency: Streamlining processes to save time and resources
- Security: Ensuring data integrity and privacy

Deep Dive into Kom Unit 2 Components

- Advanced Data Management

Kom Unit 2 introduces sophisticated methods for handling data, such as:

- Multi-layered data filtering
- Real-time data synchronization
- Data validation and cleansing tools
- Hierarchical data structures

These features enable users to manage larger datasets more effectively, ensuring accuracy and consistency.

- Customization and Personalization

This unit emphasizes the importance of tailoring the platform to specific needs:

- Custom dashboards and reports

- User-specific workflows
- Personalized notifications and alerts
- Modular plugin integrations

- Integration and Automation

Seamless integration with other tools is a highlight:

- API connections with third-party applications
- Automating repetitive tasks with scripting
- Trigger-based workflows
- Cross-platform data sharing

Automation reduces manual effort and minimizes errors, leading to more reliable outputs.

- Security and Compliance

Given the increasing importance of data security:

- Role-based access controls
- Encryption protocols
- Audit trails and activity logs
- Compliance with industry standards (GDPR, HIPAA, etc.)

Practical Applications of Kom Unit 2

Business and Enterprise Use Cases

- Data-Driven Decision Making: Leveraging advanced analytics to inform strategic choices.
- Process Automation: Streamlining operations such as inventory management, customer relations, or financial reporting.
- Custom Reporting: Creating tailored reports for stakeholders, enabling better insights.
- Security Protocols: Ensuring sensitive data remains protected across workflows.

Educational and Research Applications

- Managing large datasets for research projects
- Automating data collection and analysis
- Developing custom tools for specific research needs

Industry-Specific Implementations

- Healthcare: Managing patient data securely
- Finance: Automating transaction processing
- Retail: Enhancing inventory and sales analytics

Best Practices for Maximizing the Benefits of Kom Unit 2

- Planning and Requirement Gathering

Before diving into implementation, clearly define:

- Business objectives
 - Data sources and types
 - Integration points
 - Security requirements
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- Step-by-Step Deployment
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- Start with pilot projects
 - Gradually scale functionalities
 - Collect user feedback for continuous improvement
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- Training and Support
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- Provide comprehensive training sessions
 - Develop detailed documentation
 - Establish support channels for troubleshooting

- Continuous Monitoring and Optimization
- Regularly review workflows and data quality
- Update automation scripts as needed
- Stay informed about new features and updates

Challenges and Solutions in Implementing Kom Unit 2

While Kom Unit 2 offers powerful capabilities, implementation can pose challenges:

Common Challenges

- Data integration complexities
- Resistance to change from staff
- Managing security and compliance
- Ensuring system scalability

Solutions and Recommendations

- Conduct thorough planning and testing
- Engage stakeholders early
- Invest in training and change management
- Use scalable infrastructure and modular design

Future Outlook for Kom Unit 2

The evolution of Kom Unit 2 is poised to continue, with upcoming features focusing on:

- Artificial Intelligence integration for predictive analytics
- Enhanced user interfaces for easier interaction
- Broader automation capabilities
- Improved security protocols

As organizations increasingly rely on data-driven strategies, mastering Kom Unit 2 will become even more critical for competitive advantage.

Final Thoughts

Kom Unit 2 represents a significant step forward in harnessing the full potential of the Kom platform. Its focus on advanced features, customization, integration, and security makes it an indispensable tool for modern organizations seeking efficiency and strategic insight. By understanding its core components, applications, and best practices, users can unlock new levels of productivity and innovation.

Whether you're looking to optimize existing workflows or develop new capabilities, investing time in mastering Kom Unit 2 will pay dividends in operational excellence and data empowerment.

QuestionAnswer What are the main topics covered in KOM Unit 2? KOM Unit 2 typically covers advanced communication concepts, including digital communication systems, signal processing, and network protocols relevant to modern telecommunications. How can I prepare effectively for the KOM Unit 2 exam? Focus on understanding key principles of digital communication, practice solving problem sets, review past exams, and ensure you grasp the theoretical concepts alongside practical applications. What are common challenges students face in KOM Unit 2? Students often struggle with complex signal processing topics, understanding network architectures, and applying theoretical knowledge to real-world scenarios. Regular practice and seeking clarification help overcome these hurdles. Are there any recommended resources for studying KOM Unit 2? Yes, textbooks on digital communication systems, online lecture videos, academic papers, and university-provided lecture notes are valuable resources to deepen your understanding of KOM Unit 2 topics. How does KOM Unit 2 relate to current industry trends? KOM Unit 2's focus on advanced communication and network technologies aligns with current industry developments like 5G, IoT, and AI-driven communication systems, making it highly relevant for future careers. What practical skills will I gain from KOM Unit 2? Students will develop skills in analyzing communication systems, designing signal processing algorithms, and understanding network protocols, which are essential for careers in telecom and data communication fields. Is prior knowledge in basic communication theory necessary for KOM Unit 2? Yes, a solid understanding of foundational communication concepts from previous units is essential to grasp the advanced topics covered in KOM Unit 2 effectively.

Related keywords: kom unit 2, kom unit 2 syllabus, kom unit 2 syllabus 2023, kom unit 2 exam, kom unit 2 past papers, kom unit 2 notes, kom unit 2 preparation, kom unit 2 guide, kom unit 2 questions, kom unit 2 marks

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