

Topic Skills Practice Cover Sheet

Unit Name:	NAT10809005 – Select wiring systems and cables for low voltage electrical installations.
Topic Title:	Design and safety requirements to meet installation performance

Skill Practice Number:	1.3
Skill Practice Name:	Arrangement Final Subcircuits

Student Name:	
Student ID:	
College/Campus:	
Group:	

Results	
Planning:	
Carryout:	
Completion:	
Overall Results:	
Comments:	

Topic Skills Practice 1.3

NAT10809005 – Select wiring systems and cables for low voltage electrical installations.

KE-10809005 Electrical installations requirement for selecting cables and wiring systems

Topic 1. Design and safety requirements to meet installation performance

Skills Practice 1.3: Arrange Final Subcircuits

Task:

To determine the number and type of circuits for a given electrical installation.

Objectives:

At the completion of this skills practice, you should be able to:

- Interpret and apply the Wiring Rules to determine the requirements for electrical installation circuit layouts.
- Divide an electrical installation into circuits.
- Develop a schedule of installation circuits.

1. Planning the Skills Practice

1.1 Identify Standards and Requirements

1.1.1 Research the AS/NZS 3000:2018 to determine the compliance requirements and factors to consider when designing electrical installation circuit arrangements.

The following reference material will include some useful information:

- Energy Space content pages 1.3
- Pethebridge, K. and Neeson, I., Electrical Wiring Practice. McGraw-Hill
- Hampson, J., Electrotechnology Practice, Pearson Education

1.1.2 Once you feel you have sufficient knowledge of the subject matter, obtain the following materials to assist you with carrying out this skills practice:

- AS/NZS 3000:2018 Wiring Rules
- Calculator
- Pens/pencils

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3. Completing the Skills Practice

3.1 Skills Practice Review Questions

3.1.1 When you have successfully completed the activities in Section 2, answer the following review questions. Provide applicable AS/NZS 3000:2018 Clause(s) to support your answers where necessary.

1. When may a socket outlet be counted as a lighting point for the purposes of determining circuit loading?

2. What is the appropriate load grouping for a 125 W exhaust fan, installed 2.4 metres above the floor?



3. What is the purpose of dividing electrical installations into circuits?

4. Describe three factors that should be considered during the design of circuit arrangements for a given electrical installation.

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5. Which parts/times of the day are generally considered “peak” times of energy consumption in a domestic electrical installation?

6. Explain the seasonal effects on energy consumption in Australia.

	 Feedback	Have your teacher/trainer check your answers	Teacher/Trainer Initials and Date	