



education

Department of
Education
FREE STATE PROVINCE

EXPERIMENT / *EKSPERIMENT*

GRADE 10 / *GRAAD 10*

**TECHNICAL SCIENCES
*TEGNIJSE WETENSKAPPE***

MEMORANDUM

JUNE 2018 / *JUNIE 2018*

MARKS: 15 / *PUNTE: 15*

TIME: 30 MINUTES / *TYD: 30 MINUTE*

**This memorandum consists of two pages.
*Hierdie memorandum bestaan uit twee bladsye.***

QUESTION 1/ VRAAG 1

1.1 Marking criteria/Nasienriglyne

- Must be a statement./Moet 'n stelling wees.
- A relationship between correct variables must be given./'n Verwantskap tussen die korrekte veranderlikes moet gegee word.

Example/Voorbeeld

The potential differences across resistors in parallel is equal to the potential differences across each one of the resistors in parallel.

Die potensiaalverskil oor resistors in parallel is gelyk aan die potensiaalverskil oor elkeen van die resistors in parallel. (2)

1.2.1 A_3 ✓ (1)

1.2.2 A_3 ✓ (1)

1.3 4,5 V ✓ (1)

POSITIVE MARKING FROM 1.3/POSITIEWE NASIEN VANAF 1.3

1.4

| V_4 (V) | V_1 (V) | V_2 (V) | V_3 (V) |
|-----------|-----------|-----------|-----------|
| 4,5 | 4,5 | 4,5 | 4,5 |

Same/Dieselfde

Same/Dieselfde

(2)

1.5 Ammeter: series / serie ✓ Voltmeters: Parallel ✓ (2)

1.6.1 $A_1 = A_2$ ✓; $A_3 = A_1 + A_2$ ✓
Descriptions are fine./Beskrywings is in orde. (2)

1.6.2 Current is divided./Stroom word verdeel. ✓ (1)

1.6.3 0 A/0/Zero ✓ (1)

1.6.4 current / stroom ✓
potential difference / potensiaalverskil ✓ (2)

GRAND TOTAL / GROOTTOTAAL: 15