

**WISKUNDE**

**GRAAD 9**

**KWARTAAL 3 TOETS VOORBEELD**

**DATUM: KWARTAAL 3 2021**

**TYD: 1 UUR**

**TOTAAL: 50**

**NAAM VAN LEERDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ GRAAD 9: \_\_\_**

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| **Vraag nommer** | **1** | **2** | **3** | **4** | **5** | **6** | **Totaal** |
| **Totale punte** | **5** | **9** | **9** | **9** | **9** | **9** | **50** |
| **Leerder punte** |  |  |  |  |  |  |  |
| **Gemodereerde punte** |  |  |  |  |  |  |  |

**INSTRUKSIES:**

1. Die vraestel bestaan uit 13 bladsye en **6** vrae wat gebaseer is op die voorgeskrewe inhoud in die CAPS dokument.
2. Afdeling A het 5 veelvuldige keuse vrae. Beantwoord hierdie afdeling op die antwoordblad wat voorsien is.
3. Afdeling B het 5 vrae. Antwoord al die vrae in die gegewe spasies op die vraestel.
4. Wys alle berekeninge.
5. ‘n Goedgekeurde sakrekenaar (nie – programeerbaar) mag gebruik word.
6. Waar nodig rond die antwoorde tot twee desimale getalle af tensy anders aangedui.
7. Diagramme is nie noodwendig volgens skaal geteken nie.
8. Dit is in jou eie belang om netjies te werk en leesbaar te skryf.
9. **Vol punte sal nie noodwendig gegee word vir SLEGS ANTWOORDE nie.**

**AFDELING A: VEELVULDIGE KEUSE VRAE**

**VRAAG 1:**

Kies die korrekte antwoord. Omsirkel die korrekte antwoord op die **antwoordblad** wat gegee is op **bladsye 5.** As jy jou keuse wil verander, trek ‘n kruis deur die verkeerde antwoord en omsirkel dan die regte een.

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| --- | --- | --- |
| 1.1. | Bestudeer die onderstaande vloei diagram:    Uitset waarde  Reël  Inset waarde  Die ontbrekende reël word voorgestel deur:  A)  B)  C)  D) | (1) |
| 1.2. | Die gradiënt van die reguitlyngrafiek is:    A) 1  B) 2  C) 0  D) ongedefinieerd | (1) |
| 1.3. | Watter transformasie word in die diagram voorgestel?    Beeld  oorspronklik  A) Refleksie in die  B) Translasie  C) Refleksie in die  D) Rotasie | (1) |
| 1.4. | In die diagram sny die lyne *n* en *m* die transversaal by *p* en *q*.    Vir watter waarde van *x* sal die lyne *n* en *m* parallel wees?  A) 110  B) 80  C) 70  D) 50 | (1) |
| 1.5. | ABCD and AEFG is twee parallelogramme. As = 60°, hoe groot sal wees?    A) 30  B) 60  C) 90  D) 120 (1) | |

**ANTWOORDBLAD**

**OMKRING JOU ANTWOORD VAN AFDELING A OP DIE ONDERSTANDE SOOS AANGEDUI IN DIE VOORBEELD:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Example:** | **A** | **B** | **C** | **D** |
| **1.1.** | **A** | **B** | **C** | **D** |
| **1.2.** | **A** | **B** | **C** | **D** |
| **1.3.** | **A** | **B** | **C** | **D** |
| **1.4.** | **A** | **B** | **C** | **D** |
| **1.5.** | **A** | **B** | **C** | **D** |

**[51]**

**[TOTAAL: 5]**

**AFDELING B: VRAE PER ONDERWERP**

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| --- | --- | --- |
| **VRAAG 2: FUNKSIES EN VERWANTSKAPPE** | | |
| 2.1 | Pas die voorstelling van die funksie in kolom 1 met die voorstelling van dieselfde funksie in kolom 2 met mekaar. Skryf jou antwoord in die antwoord kolom.   |  |  |  | | --- | --- | --- | | KOLOM 1 | KOLOM 2 | ANTWOORD | | 1. Trek af 1 van die inset en vermenigvuldig dan met 4. | A. | 1. | |  | B. | 2. | |  | C. | 3. | | (3) |

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| 2.2 |  | |  |
| 2.2.1 | As die reël om y te vind is,  Bepaal die uitset waardes (𝑦) vir die gegewe inset waardes (𝑥). | (2) |
| |  |  |  | | --- | --- | --- | |  | -3 |  | |  |  |  | |

|  |  |
| --- | --- |
| 2.2.2 Die volgende vergelyking word gegee:  As die uitset waardes is, Bepaal die inset waardes. | |
|  | (2) |
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| 2.2.3 | Bepaal die reël in die volgende table.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | -1 | 0 | 1 | 2 | |  | -3 | 2 | 7 | 12 |   Reël: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | (2) |

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| **[TOTAAL: 9]** | | |
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| **VRAAG 3: GRAFIEKE** | |  |
| 3.1 | Bestudeer die reguit lyn grafiek en beantwoord die vraag wat volg.   * + 1. Gee die vergelyking van die reguit lyn. | |
| Vergelyking: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (2) | |
|  | |
| 3.2. | Die tabel verteenwoordig die verhouding tussen die en waardes. | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | *x* |  | 2 | 4 |  | | *y* | 5 | -1 |  | 8 | | | |

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| |  |  |  | | --- | --- | --- | | 3.2.1 | Bepaal ***a*** en ***b*** en toon aan al jou berekeninge. | (3) | |  | |  | | 3.2.2 Gebruik die tabel en jou antwoorde in vraag 3.2.1 om die grafiek op die assestelsel te teken.  .   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   (4) | | | |
| **[ TOTAAL: 9]**  **VRAAG 4: TRANSFORMASIE MEETKUNDE** |

4.1 In die figuur bestudeer die transformasie van reghoek na en beantwoord dan die vrae.

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| 4.1.1. | Beskryf die translasie in woorde. |  |
|  |  | (2) |
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| 4.1.2. | Gee die koördinate van as gereflekteer is om die . | |
|  |  |  |
|  |  | (2) |

4.1.3Gebruik die assestelsel en teken driehoek PQR met koördinate:

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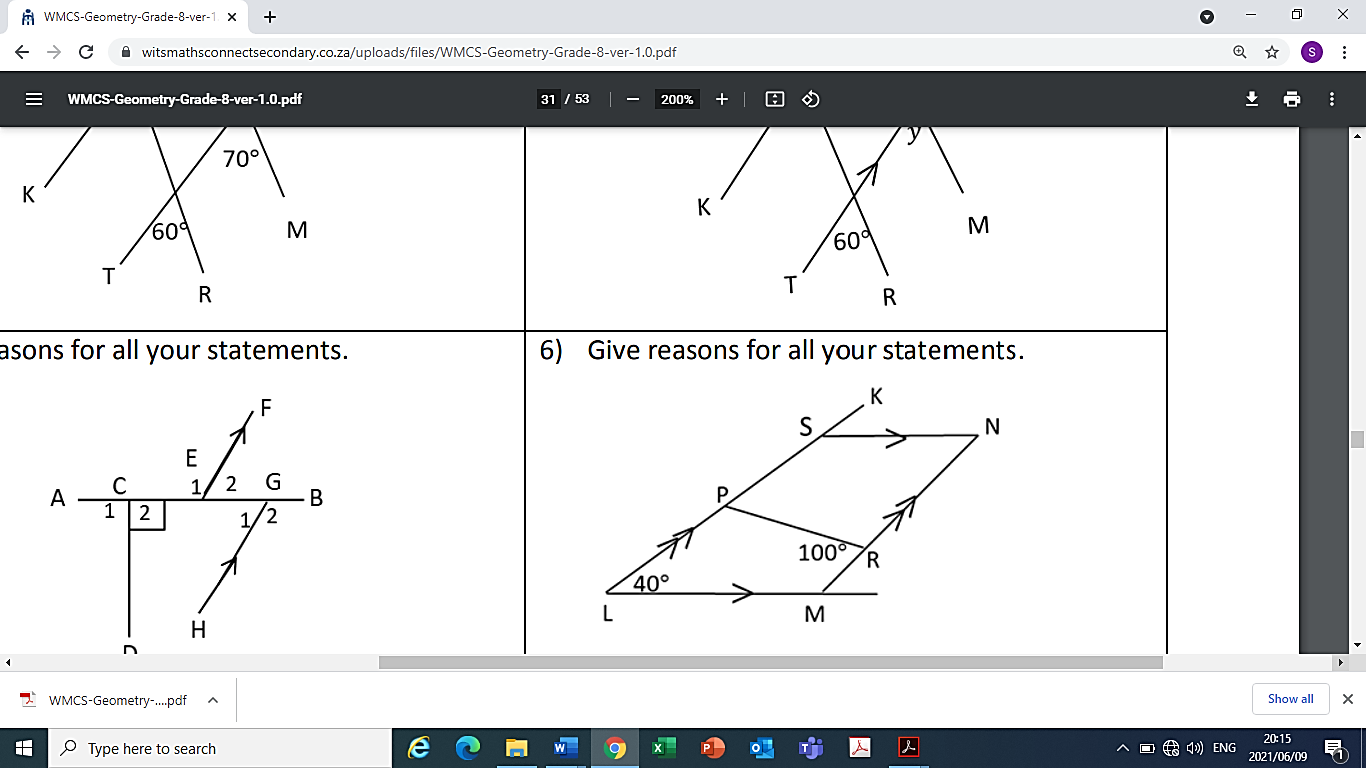
(2)

4.1.4Gebruik dieselfde assestelsel en teken driehoek . (die spieëlbeeld van ) nadat eenhede regs en 5 eenhede af getransleer is. (3)

**[ TOTAAL: 9]**

**VRAAG 5: MEETKUNDE VAN REGUIT LYNE**

5.1In die diagram is = 100° en = 40°.

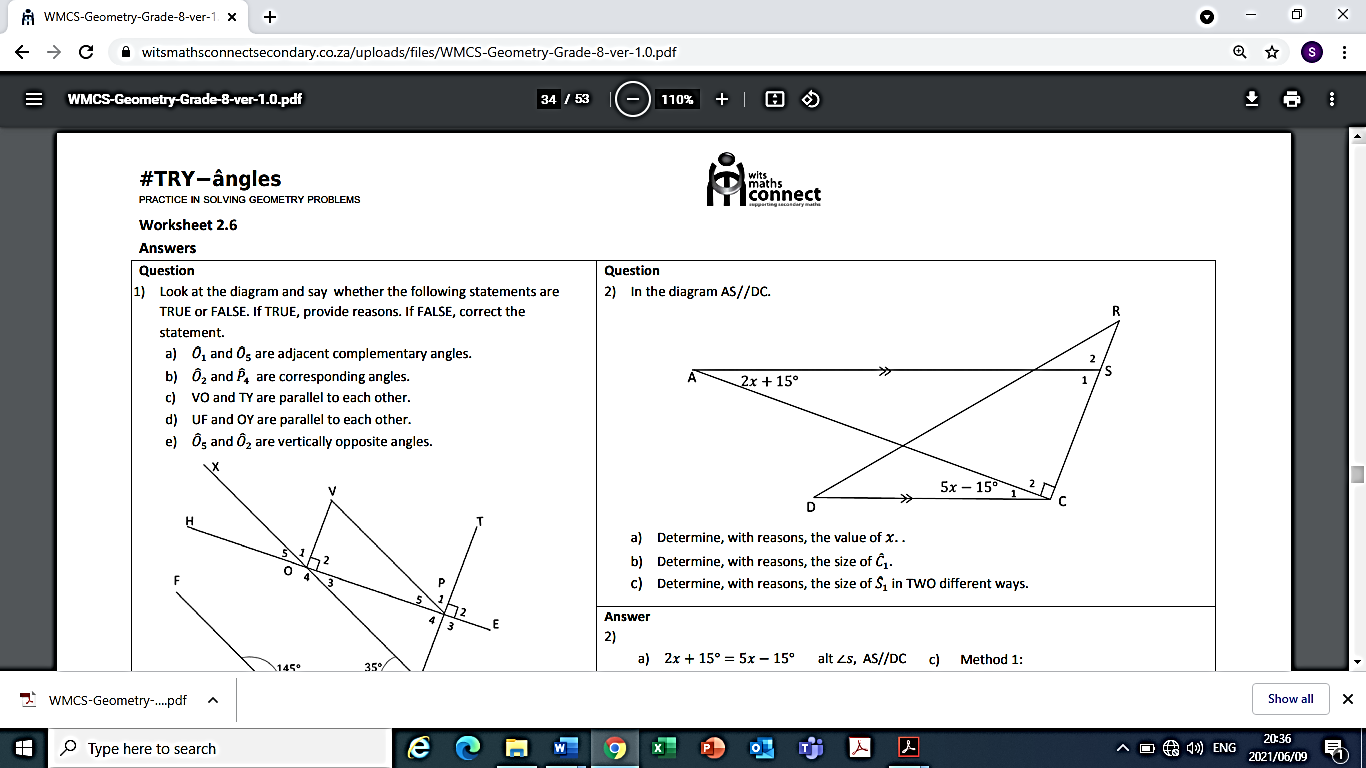


Gee redes vir elk van die volgende stellings.

|  |  |  |
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|  | Bewering | Rede |
| 5.1.1 |  |  |
| 5.1.2 |  |  |
| 5.1.3 |  |  |

(3)

5.2 In die diagram is AS *// DC.*



5.2.1 Bepaal met redes die waarde van .

|  |  |
| --- | --- |
| Bewering | Rede |
|  |  |
|  |  |
|  |  |

(3)

5.2.2 Bepaal met redes die grootte van .

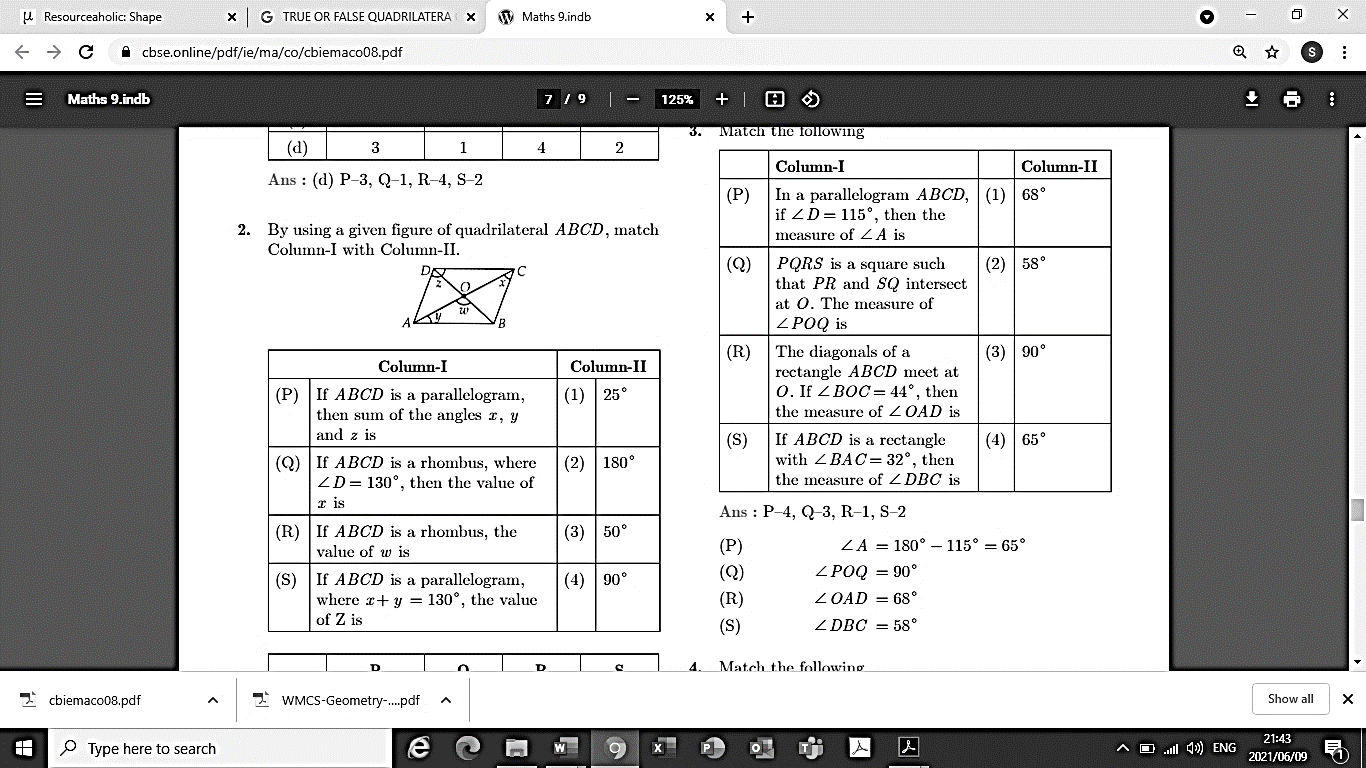
|  |  |
| --- | --- |
| Bewering | Rede |
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|  |  |
|  |  |

(3)

**[ TOTAAL: 9]**

**VRAAG 6: MEETKUNDE VAN 2-D VORMS**

6.1 Bestudeer die vierhoek ABCD en antwoord die vrae wat volg.

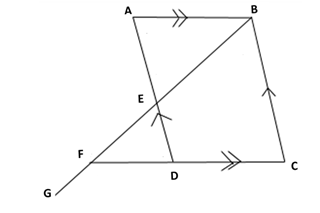


6.1.1 Sê of die volgende bewerings waar of vals is.

|  |  |
| --- | --- |
| BEWERING | WAAR OF VALS |
| 1. As ABCD ‘n parallelogram is, dan is die som van die hoeke ***x, y*** en ***z*** gelyk aan 1800. |  |
| 1. As ABCD ‘n ruit is, met = 1300, dan is die waarde van ***x*** 250. |  |
| 1. As ABCD ‘n ruit is, is die waarde van *w* gelyk aan 1800. |  |
| 1. As ABCD ‘n parallelogram is, waar x + y = 1300, dan is die waarde van ***z*** 500. |  |

(4)

6.2 In die diagram is *AB // DC en AD // BC, = 600 en = 520.*



6.2.1 Klassifiseer vierhoek ABCD**.**

|  |
| --- |
|  |

(1)

6.2.2 Bepaal met redes die grootte van .

|  |  |
| --- | --- |
|  | Rede |
|  |  |
|  |  |
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|  |  |
|  |  |
|  |  |

(4)

**[ TOTAAL: 9]**

**TOTAAL [50]**