



ADDITIONAL RESPONSES
PREPARATORY EXAMINATION 2020 /
VOORBEREIDENDE EKSAMEN 2020

SUBJECT / VAK : MATHEMATICS / WISKUNDE

MEMORANDUM

SUBJECT CODE / VAKKODE : 10601

PAPER / VRAESTEL : 1

DATE OF EXAMINATION /
DATUM VAN EKSAMEN : 25 SEPTEMBER 2020

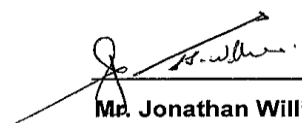
SESSION / SESSIE : 1

ATTENTION / AANDAG: CHIEF INVIGILATOR / HOOFTOESIGHOUER

Please bring the following additional responses to the MEMORANDUM to the attention of all relevant candidates.

1.1.4	$x - 3x^{\frac{1}{2}} = 4$ $x - 3x^{\frac{1}{2}} - 4 = 0$ $\left(x^{\frac{1}{2}} - 4\right)\left(x^{\frac{1}{2}} + 1\right) = 0$ $x^{\frac{1}{2}} = 4 \text{ or } x^{\frac{1}{2}} \neq -1$ $x = 16$	✓ standard form/ <i>standard vorm</i> ✓ factors/ <i>faktore</i> ✓ critical values/ <i>kritieke waardes</i> ✓ rejection/ <i>verwerping</i> ✓ squaring/ <i>kwadreeer</i> ✓ answer/ <i>antwoord</i>	(6)
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11.1	$0,2 = (x + 0,2) \times (0,2 + 0,3)$ $0,2 = (0,2 + x) \times 0,5$ $0,2 = 0,1 + 0,5x$ $0,1 = 0,5x$ $x = 0,2$ $\therefore x + y + 0,2 + 0,3 = 1$ $0,2 + y + 0,5 = 1$ $0,7 + y = 1$ $y = 0,3$	✓ $P(A) \times P(B) = P(A \text{ and/ en } B)$ ✓ $x\text{-value/ } x\text{-waarde}$ ✓ sum of probabilities = 1 som van waarskynlikheid = 1 ✓ $y\text{-value/ } y\text{-waarde}$	(4)
11.2	$n(S) = 6! = 720$ $n(X \text{ and } Y \text{ together}) = 2! \times 5! = 240$ $n(X \text{ and } Y \text{ not together}) = 720 - 240 = 480$ $P(X \text{ and } Y \text{ not together}) = \frac{480}{720} = \frac{2}{3} = 0,67$	✓ $6! = 720$ ✓ $2! \times 5! = 240$ ✓ answer/ antwoord	(3)
11.3.3	4 digit numbers (with repetition and last digit = 0) $10 \times 10 \times 10 \times 1 = 1\,000$ OR/ OF $9 \times 10 \times 10 \times 1 = 900$	✓ product/ produk ✓ answer/ antwoord OR/ OF ✓ product/ produk ✓ answer/ antwoord	(2)


Mr. Jonathan Williams

DIRECTOR: EXAMINATIONS MANAGEMENT
29/09/2020