SOUTHERN AFRICAN SENIOR MATHEMATICS OLYMPIADS
FEMSISA MATHEMATICS OLYMPIADS
GRADES TEN AND ELEVEN: 2021
ANSWERS

GRADE 10	
No.	
1	C - -2
2	D - 4x+2h - 5
3	B - 1
4	A - y = 3x + 5
5	D - 7(x+1)(x-1)
6	B - 60
7	C - R31200
8	B - 5000
9	D - $\frac{-17}{2}$ or $x = -2$
10	B - $\frac{kT^2}{4\pi^2}$
11	A - 20
12	C - $\frac{7y}{(3x+2)(3x-2)}$
13	D - 1200
14	B - $479\frac{29}{30}$
15	A - (2;3)
16	14
17	30
18	y = x + 15
19	$3\sqrt{2}$
20	9.5

GRADE 11	
No.	
1	C - 8; -8
2	A - -12x – 6h + 1
3	B - 12
4	C - $1 < x \leq \frac{5}{4}$
5	B - 14 only
6	D - 8
7	B - 49
8	A - $\frac{2g}{f}$
9	D - 10
10	D - $y = x^2 - 2x$
11	B - 6
12	C - 1061
13	A - $(\frac{1}{2}; 1)$
14	D - $\frac{2}{\tan\theta}$
15	C 76
16	$\frac{1}{12}$
17	$10\sqrt{6}$
18	$75\sqrt{3}$
19	560
20	7:4

1 – 15 = 15 X 1 MARKS = 15
16 – 20 = 5 X 2 MARKS = 10
TOTAL = 25

CERTIFICATES:
Gold: 17+
Silver: 12-16
Bronze: 8-11
Participation: 0-7