Assessment framework:

		Cognitive domain						
		Knowing (K)		Applying (A)		Reasoning (R)		TOTAL
Content area	Number, operations and relationships (NOR)	1a(1), 1b(1), 2a(1), 2b(1), 2c(1), 2d(1), 2e(1), 2f(1), 2g(1), 2h(1), 5(1)	11	3a(2), 3b(2), 3c(2) , 6(2), 8(2)	10	4(2), 7(2),	4	25
	Patterns, functions & algebra (PFA)	9a(2)	2	9b(2)	2	9c(1)	1	5
	Space & shape (SS)	10(1), 11(1), 12(1)	3	13(1), 15(1)	2	14(2)	2	7
	Measurement (M)	16(1), 17(1), 18(1)	3	19(1), 20(1), 21(1), 22(1)	4	23(2)	2	9
	Data handling (DH)	24a(2), 23b(1)	2	24c(1)	1	24d(1)	1	4
	TOTAL	21		19		10		50

Memo:

Question	Correct solution(s)	Comment	Content area	Cognitive domain	Mark allocation
1.a)	C	1 mrk: correct	NOR	K	1

Question	Correct solution(s)	Comment	Content area	Cognitive domain	Mark allocation
1.b)	A	1 mrk: correct	NOR	K	1
2.a)	5 750	1 mrk: correct	NOR	K	1
2.b)	2 900	1 mrk: correct	NOR	K	1
2.c)	13,3	1 mrk: correct	NOR	K	1
2.d)	47,5	1 mrk: correct	NOR	K	1
2.e)	R22,94	1 mrk: correct	NOR	K	1
2.f)	R5,52	1 mrk: correct	NOR	K	1
2.g)	4800	1 mrk: correct	NOR	K	1
2.h)	2,56	1 mrk: correct	NOR	K	1
3.a)	344 *Possible working:* • $43 \times 10 = 430; 430 - (2 \times 43) = 430 - 86 = 344$ • Double $43 = 86$; Double $86 = 172$, Double $172 = 344$ • $40 \times 8 = 320; 3 \times 8 = 24; 320 + 24 = 344$	2 mrks: correct or 1 mrk: correct working	NOR	A	2
3.b)	$\frac{1}{2}$ or $\frac{5}{10}$ *Possible working:* • $\frac{1}{5} + \frac{3}{10} = \frac{2}{10} + \frac{3}{10} = \frac{5}{10} = \frac{1}{2}$	2 mrks: correct or 1 mrk: correct working	NOR	A	2

Question	Correct solution(s)	Comment	Content area	Cognitive domain	Mark allocation
3.c)	$13\frac{1}{2}$ or $\frac{27}{2}$ *Possible working:* • $4\frac{1}{2}+4\frac{1}{2}\rightarrow 9+4\frac{1}{2}\rightarrow 13\frac{1}{2}$ • $4\times 3=12; \frac{1}{2}\times 3=1\frac{1}{2}; 12+1\frac{1}{2}=13\frac{1}{2}$ • $4\frac{1}{2}\times 3=\frac{9}{2}\times 3=\frac{27}{2}$	2 mrks: correct or 1 mrk: correct working	NOR	A	2
4.	36 *Possible working:* • $\frac{1}{12}$ of the number $=21\div 7=3$; $\frac{12}{12}$ of the number $=3\times 12=36$	2 mrks: correct or 1 mrk: correct working	NOR	R	2
5.	6	1 mrk: correct	NOR	K	1
6.	$\frac{3}{5}$ *Possible working:* • $\frac{9}{20}<$ 1-half, whereas $\frac{3}{5}>$ 1-half • $\frac{3}{5}=\frac{12}{20}$. Since $\frac{9}{20}<\frac{12}{20}$, $\frac{9}{20}<\frac{3}{5}$	2 mrks: correct or 1 mrk: correct working	NOR	A	2

Question	Correct solution(s)	Comment	Content area	Cognitive domain	Mark allocation
7.	10 *Possible working:* • $\frac{1}{4}+\frac{1}{4}\rightarrow\frac{2}{4}+\frac{1}{4}\rightarrow\frac{3}{4}+\frac{1}{4}\rightarrow 1+\frac{1}{4}\rightarrow 1\frac{1}{4}+\frac{1}{4}\rightarrow 1\frac{2}{4}+\frac{1}{4}\rightarrow 1\frac{3}{4}+\frac{1}{4}\rightarrow 2+\frac{1}{4}\rightarrow 2\frac{1}{4}+\frac{1}{4}\rightarrow 2\frac{2}{4}\left(or\ 2\frac{1}{2}\right)$ • There are 4-quarters in 1, so 8-quarters in 2. Plus another 2-quarters to give 1-half	2 mrks: correct or 1 mrk: correct working	NOR	R	2
8.	522 *Possible working:* $71\times 7=70\times 7+7=497;\ 497+25=522$	2 mrks: correct or 1 mrk: correct working	NOR	A	2
9.a)	A: 14 B: 21	1 mrk: A correct 1 mrk: B correct	PFA	K	2
9.b)	Picture 12 *Possible working:* • Picture $5=16$ grey tiles; $16+2+2+2+2+2+2+2=30$ ∴Picture 12 • $30-6$ (on left and right side) → $24\div 2$(top and bottom) → 12	1 mrk: correct 1 mrk: valid working	PFA	A	2
9.c)	$20\times 3+6$ and $3\times(20+2)$	1 mrk: correct	PFA	R	1
10.	Pentagonal prism	1 mrk: correct	SS	K	1
11.	C	1 mrk: correct	SS	K	1

Question	Correct solution(s)	Comment	Content area	Cognitive domain	Mark allocation
12.	A	1 mrk: correct	SS	K	1
13.	C	1 mrk: correct	SS	A	1
14.	4; 6 and 7	2 mrks: correct or 1 mrk: correct working	SS	R	2
15.	D	1 mrk: correct	SS	A	1
16.	The angles are right angles; they have four edges.	1 mrk: correct	M	K	1
17.	4,55	1 mrk: correct	M	K	1
18.	17	1 mrk: correct	M	K	1
19.	23	1 mrk: correct	M	A	1
20.	36	1 mrk: correct	M	A	1
21.	4	1 mrk: correct	M	A	1
22.	$1\frac{3}{5}$ or 1,6	1 mrk: correct	M	A	1

Question	Correct solution(s)	Comment	Content area	Cognitive domain	Mark allocation
23.	2 minutes and 33 seconds *Possible working:* • $1{:}50 + 2{:}37 + 3{:}04 = 7$ minutes and 31 seconds; 12 minutes 37 seconds $-$ 7 minutes and 31 seconds $= 5$ minutes and 6 seconds; Half of 5 minutes and 6 seconds $=$ 2 minutes and 33 seconds	2 mrks: correct or 1 mrk: correct working	M	R	2
24.a)	Cape Town	1 mrk: correct	DH	K	1
24.b)	Johannesburg	1 mrk: correct	DH	K	1
24.c)	230	1 mrk: correct	DH	A	1
24.d)	The sun shines more than half the year in Johannesburg	1 mrk: correct	DH	R	1