	Density L2 Mark Scheme	
1(a)	$1 \div 1 (= 1)$	[1]
	1 g/cm^3	[1]
1(b)	$1 \times 1 (= 1)$	[1]
	1 g	[1]
1(c)	$1 \div 1 (= 1)$	[1]
	1 cm^3	[1]
1(d)	$1 \div 1000 (= 0.001)$	[1]
	0.001 m^3	[1]
1(e)	$5 \times 150 (= 750)$	[1]
	750 g	[1]
1(f)	$8300 \div 16600 (= 0.5)$	[1]
	0.5 g/cm^3	[1]
1(g)	$5040 \div 21 (= 240)$	[1]
	240 cm^3	[1]
1(h)	$756 \div 252 (= 3)$	[1]
	3 g/cm^3	[1]
1(i)	$0.00125 \times 100000 (= 125)$	[1]
	125 g	[1]
1(j)	$65536 \div 0.00390625 (= 16777216)$	[1]
	16777216 kg/m^3	[1]
2(a)	$500 \div 500 (= 1)$	[1]
	$= 1$ g/cm^3	[1]
2(b)	$625 \div 500 (= 1.25)$	[1]
	1.25 g/cm^3	[1]
2(c)	$375 \div 125 (= 3)$	[1]
	3 g/cm^3	[1]
2(d)	$300 \div 250 (= 1.2)$	[1]
	1.2 g/cm^3	[1]

3(a)	$7.9 \times 8 (= 63.2)$	[1]
	63.2 g	[1]
3(b)	$2.7 \times 64 (= 172.8)$	[1]
	172.8 g	[1]
3(c)	$11.3 \times 27 (= 305.1)$	[1]
	305.1 g	[1]
3(d)	$2.2 \times 216 (= 475.2)$	[1]
	$3.0 \times 125 (= 375)$	[1]
	Sandstone has the greatest mass because 475.2 is greater than 375	[1]
4(a)	$200 \div 1 (= 200)$	[1]
	A: 200 cm^3	[1]
	$1320 \div 1.1 (= 1200)$	[1]
	B: 1200 cm^3	[1]
4(b)	$800 \div 1.6 (= 500)$	[1]
	$500 \times 2 (= 1000)$	[1]
	1000 cm^3	[1]
4(c)	D: $10201 \div 1.01 (= 10100)$	[1]
	E: $10000 \div 1.25 (= 8000)$	[1]
	D is larger.	[1]
	$10100 - 8000 = 2100$ cm^3	[1]
5(a)	$2000 \div 8 (= 250)$	[1]
	250 kg/m^3	[1]
5(b)	$5000 \div 25 (= 200)$	[1]
	200 kg/m^3	[1]
	No	[1]
5(c)	$2500 \div 6.25 (= 400)$	[1]
	$1200 \div 4 (= 300)$	[1]
	Denser than Tayata Riva, Valvo Bus and Fait 220	[1]

6(a)	Lead volume: $1 \times 1 \times 1 = 1$ cm^3	[1]
	Aluminium volume: $8 \times 8 \times 8 = 512$ cm^3	[1]
	Iron volume: $4 \times 4 \times 4 = 64$ cm^3	[1]
	Gold volume: $3 \times 3 \times 3 = 27$ cm^3	[1]
	Lead density: $13824 \div 1 = 13824$ g/cm^3	[1]
	Aluminium density: $13824 \div 512 = 27$ g/cm^3	[1]
	Iron density: $13824 \div 64 = 216$ g/cm^3	[1]
	Gold density: $13824 \div 27 = 512$ g/cm^3	[1]
6(b)	$1 + 512 = 513$ cm^3	[1]
	$5130 \div 513$	[1]
	$= 10$ g/cm^3	[1]