1) A
2) A
3) C
4) C
5) A
6) C
7) A
8)

(a)	**(i)**	mass / volume …(ratio must be clear)……	B1	
	(ii)	kg m^{-3} OR kg / m^3 ……	B1	[2]

9)

(a)	$m = \rho V$	B1	**[1]**
(b)	pressure in liquid depends on depth	B1	
	bottom of sphere has greater pressure on it than top	M1	
	so resultant force or pressure is upwards	A1	**[3]**

10)

(a)	mass / volume (ratio idea essential)		B1	[1]
(b)	**(i)**	mass = $Ah\rho$	B1	[1]
	(ii)	pressure = force/area	B1	
		weight (of liquid)/force (on base) = $Ah\rho g$	B1	
		pressure = $h\rho g$	A0	[2]
(c)	**(i)**	ratio = 1600 or 1600:1	A1	[1]
	(ii)	ratio = $\sqrt[3]{1600}$	C1	
		= 11.7 (*allow 12*)	A1	[2]
(d)	**(i)**	density of solids and liquids are (about) equal	B1	[1]
	(ii)	strong forces: fixed volume	B1	
		rigid forces: retains shape / does not flow / little deformation	B1	[2]
		(allow 1 mark for fixed volume, fixed shape)		