ID	P1 (20pts, 2 subproblems)		P2 (30pts, 2 subproblems)		P3 (50pts, 8 subproblems)								Total Grade
	(a) 10pts	(b) 10pts	(a) 15pts	(b) 15pts	(a) 5pts	(b) 5pts	(c) 5pts	(d) 5pts	(e) 5pts	(f) 5pts	(g) 10pts	(h) 10pts	
902047920	10	10	15	15	5	5	5	5	5	5	10	10	100
902065073	10	10	15	15	3	5	5	5	5	5	10	10	98
902060583	10	10	15	12:S=m*s, S(surr) wrong	5	5	5	5	5	5	10	10	97
902038498	10	10	14 - circle ans.	13 - deriv. error	5	5	5	4 - signs	5	5	10	10	96
902051484	10	10	15	13--see soln	5	5	5	5	5	5	8	10	96
902044814	10	10	15	10 - integration	5	5	5	5	5	5	10	10	95
902046420	9 - algebra	9 - wrong area	15	12--missing m	5	5	5	5	5	5	10	10	95
902047865	10	10	10 - missing PdV	15	5	5	5	4 - signs	5	5	10	10	94
902050491	9 - wrong area	9 - wrong area	15	15	5	5	5	5	5	5	9 - not accurate	7 - should use h	94
902051308	10	10	15	10-see soln	5	5	5	5	5	5	9	10	94
902051683	10	8-wrong number	13-- ln T/To	15	5	5	5	5	5	5	10	8	94
902084716	10	10	15	15	5	5	5	5	5	5	4	10	94
902045748	10	10	10 - volume term	12 - mult by mass	5	5	5	5	5	5	10	10	92
902000788	10	9 - c' wrong sign	15	12 - missing mass	5	5	5	5	3 - sub. numer.	5	10	7 - off by factor of 2	91
902045668	9 - wrong area	9 - wrong area	12 - mult by mass	15	5	5	5	5	5	5	10	6 - see soln	91
902048520	10	wrong	15	12--wrong Q	5	5	5	4 - signs	5	5	10	7 - off by factor of 2	90
902058666	10	10	15	10 - wrong	5	5	5	5	5	5	10	5 - see solution	90
902040035	10	10	10:finish integral	10:finish integral	5	5	5	4:mdot(h2-h1)	5	5	10	10	89
902047925	10	10	15	on s	5	5	5	5	5	5	10	0 - not done	89
902065303	8-need Area	8-need Area	15	10-see soln	4	5	5	5	5	5	10	9	89
902047544	10	10	14:s=S/m	15	5	5	5	4:mdot(h2-h1)	5	5	rough	6:see solution	88
902062198	10	10	15	12 - missing mass	5	5	5	5	5	4 - algebra	7 - peak too low	work	88
902047032	10	8:tau>0, [tau]=s	15	15	5	5	3:see solution	5	1:see solution	5	10	4:see solution	86
902062844	10	10	12 - v=v1 not v0	6 - surr off, (-) error	5	5	5	4 - signs	5	5	9 - label 4	10	86
902048081	10	10	10 - missing PdV	6 - see solution	5	5	5	4 - signs	5	5	10	10	85
902055471	10	7 - no numbers	15	12 - mult by mass	5	5	5	5	5	5	10	1	85
902058562	10	10	12 - integration	10 - integration	5	5	5	5	5	5	10	3 - see solution	85
902063815	10	10	15	10 - missing T term	3 - wrong h3	5	3 - wrong h2	5	5	5	10	4 - wrong h	85
902045054	7 - not a sphere	10	12 - integration	10 - integration	5	5	5	5	5	5	8 - see solution	7 - wrong h2	84
902047286	10	10	correct	8:see solution	1:see solution	5:based on wrong	5:based on wrong	5:based on wrong	5:based on wrong	5	10	8:based on wrong?	84
902047998	10	wrong	15	6 - see solution	5	5	5	4 - signs	5	5	10	7 - off by factor of 2	84
902048600	10	10	15	wrong surrounding	3 - wrong h3	5	5	4 - signs	5	5	10	4 - no answer	84
902050644	10	8-wrong value	15	15	5	5	5	5	4 - wrong data	1 - Unit	10	1	84
901971882	10	9:[tau]=sec	yet	expressions	5	5	5	4:see solution	5	5	10	4:see solution	83
902064413	9- wrong value	9 - wrong value	15	15	2 - wrong concept	4 -wrong value	4 - wrong value	4 -wrong value	4 - wrong value	5	5 - wrong status	9 - wrong value	83
902045629	10	10	15	int. error	5	5	5	5	5	5	rough	2:see solution	82
902046361	9 - algebra	10	15	5 - missing surr. and univ.	5	5	5	4:mdot(h2-h1)	5	5	10	4:see solution	82
902051524	10	9-need units for time	15	8--need U2-U1	5	5	5	5	5	5	10	0	82
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902048713	6 - wrong area	8 - wrong value	15	9 - T1, surr off	5	5	5	5	5	4 - algebra	3 - no dome	10	80
902049138	10	6 - wrong setup	14 - v2?	surr, univ	5	5	5	4 - signs	3 - wrong terms	5	10	10	80
902049626	8 - wrong const	6 - wrong ans, A	15	Ssurr	4 - sign	5	5	4 - math	0	5	8 - proc 2-3	10	80
902055542	10	10	15	5 - see solution	5	5	5	5	5	5	10	0	80
902061781	10	10	15	surr/univ wrong	5	5	5	3 - multiply mass flow	5	5	5 - see solution graph	4 - see solution	80
902065604	10	10	15	3--see soln	5	5	5	5	5	5	10	2	80
902038561	10	10	15	2 - wrong but S sys	5	5	5	5	5	5	10	2 - wrong h, no isen.	79
902050735	10	8-wrong value	11 - missing content	2 - missing content	5	5	5	5	5	5	10	8 - value	79
902073711	8:wrong area	10:wrong area	wrong expression	expressions	solution	5:based on wrong answer	5:based on wrong answer	5:based on wrong answer	5:based on wrong answer	5	8:see solution	7:see solution	79
902063486	8 - wrong c	6 - wrong ans, A	15	15	0	5	5	5	4 - sign	5	10	0	78
902077951	missing	10	12 - integration	content	5	5	5	5	5	5	10	0	78
902038591	10	10	11 - wrong calculus	7 - wrong equation	4 - concept	5	5	5	5	4 - temprature	10	1	77
902050144	10	10	9 - wrong calculation	5 - missing content	5	5	5	5	5	5	10	3 - unfinished	77
902050335	10	10	15	2 - content missing	5	5	5	5	5	5	10	0	77
901951260	10:(1/6)tau	[tau]=seconds	3:see solution	9:see solution	4:units	5	5	5	5	5	9:see solution	9:units	76
902049546	10	10	15	0	5	5	5	4 - sign	5	5	10	2 - wrong but W	76
902051258	7-not a sphere	10	8--alpha effect	11-universe?	5	5	5	5	5	5	9	1	76
902059878	10	5 - wrong	7 - need alpha	12 - mult by mass	5	5	5	5	5	5	10	2	76
902037959	10	7- wrong value	15	12 - wrong equation	4 - wrong equation	4 - wrong equation	2- wrong equation	4 - wrong equation	5	2 - wrong concept	8 - wrong status	2 - table	75
902039190	8 - incorrect signs	7-area*6sides	13 (reference state)	1--see solution	5	5	5	4 - signs	5	5	10	7 - off by factor of 2	75
902048291	10	10	10--missing PdV	1--see solution	5	5	5	4 - signs	5	5	10	5 - see solution	75
902048835	6 - temp wrong	6 - wrong setup	12 - missing ln.	10 - no R, missing mass	5	5	4 - signs	5	5	3 - wrong TL	10	4 - see sol'n	75
902051103	10	10	7-see soln	7--see soln	5	5	4	5	5	5	10	2	75
902055506	10	10	2:see solution	8:partially-correct expressions	5	5	5	4:see solution	5:based on wrong	5	8:see solution	8:see solution	75
902047553	10	7:inverted V&A; [tau]=seconds	10:see solution	15:based on wrong (a)	5	5	3:see solution	3:see solution	2:see solution	4:wrong T_L	8:accurate sketch, not rough	2:see solution	74
902047656	8:wrong tau expression	9:wrong value from (a); [tau]=s	15	10:wrong surroundings	5	4:wrong decimal place	4:wrong decimal place	3:mdot(h2-h1), decimal place	5	5	4:see solution	2:see solution	74
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902051330	8-wrong sign	9-wrong numbers	15	11--wrong Q;missing m	5	5	5	5	5	2	4	0	74
902044749	9 - wrong area	9 - wrong area	10 - Pdv term	14 - negative sign	5	5	5	5	5	3 - use TL=T1	3 - see solution	0	73
902050446	7 - wrong area	7 -wrong area	11 - wrong calculus	10- same to (a)	5	5	5	5	2 - concept	5	10	1	73
902062810	10	6 - value/units off	15	5 - no surr or univ	5	5	4 - h2	5	2 - wrong terms	4 - Th	10	2 - see sol'n	73
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902019081	10	0 - no tau	15	8 - wrong	5	5	5	5	2 - wrong Wnet	3 - use Kelvin	10	3 - see solution	71
902045110	10	9 - wrong area	7 - wrong	5 - missing parts	5	5	5	5	5	5	10	0	71
902045172	10	9 - calc error	15	5 - missing parts	5	5	3	3	5	1	10	0	71
902054700	10	10	8 - int error, no α	5 - check sol'n	5	5	5	4 - algebra	5	5	7 - wrong shape	2 - see sol'n	71
902062865	10	6 - not sphere	8 - missing term	5 - no surr, univ	5	5	5	5	5	3 - wrong TL	10	4 - see sol'n	71
902040071	7 - incorrect convection assumption	0 - incorrect, little work	15	10 - algebra, surroundings wrong	4 - signs	5	5	5	5	3 - celsius	7 - wrong shape	4 - wrong setup	70
902045642	9 - wrong area	9 - wrong area	10 - volume term	10 - need to integrate	2 - see solution	5	5	5	3 - wrong sign	5	7 - see solution	0	70
902061735	10	8-need A	15	6:symbolic; see solution	2	5	5	3:see solution	5	4:convert C->K	6:accurate sketch, not rough	0	69
902038475	10	3 - incorrect method for t.c.	7 - missing alpha term	0 - not done	3 - wrong h_4	5 - using wrong value	5 - using wrong value	5 - using wrong value	5 - using wrong value	5	10	10 - using wrong value	68
902045820	8 - need area	7 - no numbers	13 - int mistake	7 - see solutions	2	5	5	5	2	3	9	2	68
902049269	10	10	15	2 - wrong but Ssur	5	5	5	5	1 - nothing but eta	0	10	0	68
902056131	10	8-need area	8--alpha effect	5--see soln	5	5	5	3	3	5	9	2	68
902064748	10	10	6 - wrong equation	2 - missing	5	5	5	5	5	5	10	0	68
902045836	10	10	15	5 - see solutions	5	5	5	3	2	4	2	1	67
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902048977	10	8 - wrong value	8 - no int., (-) error	2 - no int., no surr, univ	5	5	5	5	4 - algebra	5	10	0	67
902049247	5 - missing mc term	6 - wrong ans, A	12 - no so, sign	9 - extra terms, missing ans	5	5	5	5	5	2 - wrong TL	8 - proc 3-4	0	67
902049260	10	8 - wrong A	12 - no To	0	3 - no q34	5	5	5	2 - wong numer	5	10	2 - wrong h, no isen.	67
902049291	10	5 - wrong eqn, -	10 - missing Pdv	2 - wrong but Ssys	5	5	5	5	5	5	10	0	67
902050477	8 - wrong area	8 - wrong area	15	15	3 - value	4 - value	4-value	4-value	4 - value	0	0	2	67
902046247	9 - wrong area	8 - sign, area	6:see solution	3:only system?	5	5	5	5	5	5	4:see solution	6:see solution	66
902056999	6 - not a sphere w/ wrong minus	8 - wrong value	9 - ln & int error	7 - missing mass, int errors	5	5	5	5	5	5	4 - order, shape	2 - see sol'n	66
902064047	10	6 - wrong ans, A	12 - math	2 - wrong but idea	3 - wrong h4	3	5	5	5	5	8 - proc 3-4	2 - wrong h, no isen.	66
902007812	10	8 - wrong ans	8 - int. error, X α	6 - wrong but S terms	5	5	3-no m	3-no m	5	2 - incomplete	10	0	65
902065489	10	0	10-integrate	5-see soln	5	5	5	5	5	5	10	0	65
902045767	10	10	5 - wrong eqn, int wrong	3 - wrong	1	5	5	5	5	5	10	0	64
902049837	10	9 - missing V	5 - wrong	2 - no but Ssys	3 - wrong h4	5	5	5	5	5	10	0	64
902047432	10:(1/6)tau	7:area*(6 sides), [tau]=seconds	5:see solution	2:see solution	5	5	5	5	5	3:convert C to K	8:see solution	2:see solution	62
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902059620	10	10	8 - wrong eqn, integration mistakes	2 - wrong	5	5	5	5	2	3	2	4	61
902040000	10	7 - no numbers	5 - need to integrate	7 - see solutions	0	1	5	5	5	5	10	0	60
902050160	10	0 - no work	5 - wrong equation	8- content missing	4 - wrong equation	4 - wrong value	4 - wrong value	4 - wrong value	4 - wrong value	5	10	2 - unfinished	60
902063202	10	6 - wrong setup	12 - int. error	3 - missing mass, surr, univ	1 - wrong eq.	0 - no work	5	5	4 - signs	3 - celsius	10	1 - see sol'n	60
902074754	10	0 - no concept	8 - missing T-To	2 - wrong but Ssys	3 - wrong h3	5	3 - wrong h2	5	5	5	10	2 - wrong h, no isen.	58
902049867	10	5 - incomplete	12 - math	4 - no ans but idea	0 - no u3-u4	5	4 - math	4 - sign	0	3 - wrong TL	10	0	57
902060247	9 - wrong area	9 - wrong area	7-need alpha	0	5	5	4	0	4	5	8	1	57
902053090	10	6 - evaluate	7 - int. error, missing term	0 - no work	5	5	5	5	4	1	7	0	55
902057345	9 - wrong value	9 - wrong value	3 - wrong equation	3 - wrong equation	3 - wrong data	4 - wrong value	2 - wrong concept	3 - wrong concept	4 - wrong value	5	10	0	55
902044847	10	6 - evaluate	2 - wrong eqn	0 - wrong; no work	5	5	5	4 - calc error	2 - wrong Wnet	5	10	0	54
902045367	10	5 - wrong	2 - little work	2 - check sol'n	2	5	5	5	5	3	10	0	54
902065171	7-not a sphere	8-need a negative	2-not much here	2-not much here	0	5	5	5	5	5	10	0	54
902047098	10:(1/6)tau	8:area*(6 sides)	15	0	4	0:where	0:are	0:your	4	4	8	0:answers?	53
902048850	8 - no integration	6 - numbers off	10 - missing s0	12 - int. error	5	5	5	0	0	0	0	0	51
902049389	10	10	0 - gave up	0 - gave up	5	5	2 - wrong h3	2 - wrong h2	5	3 - wrong TL	8 - wrong 1to2	0 - wrong eqn,ans	50
902059922	10	3 - wrong	5 - need to integrate	5 - missing surr. and univ.	4	5	5	5	2	3	2	0	49
902044310	9 - wrong area	9 - wrong area	12 - missing T0	0 - wrong; no work	4 - calc error	5	2 - use (h3-h2)	2 - no work	2 - use Wnet	0	2 - see solution	0	47
902058952	9 - negative sign	5 - wrong	7 - no alpha	0 - no work	1	3	3	2	3	5	8	0	46
902052957	10	4 - no clear ans.	10 - no int.	0	1 - wrong eq.	0	0	2 - mass, order	0	0	0	0	27
902074749	2:see solution	2:see solution	3:see solution	6:see solution	4:mdot(h3-h4)	3:see solution	0	0	1	2	4	0	27
902051638													
902058255													