	A	B	C	D	E	F	G
1	Katelyn Beatty						
2	CEEN 4812						
3	Due 15 September 2009						
4	**Homework No. 3. Sewage Treatment Plant Construction Cost Estimating**						
5							
6	**User Input**						
7							
8		***Factors***			***Expenses For Project***		
9		Process Equipment	37.58%		Installed Equipment Cost		
10		Concrete	17.51%		**Before** Piping & Valves		**$800,000.00**
11		Electrical & Instrumentation	13.61%				
12		Architectural	20.56%				
13		Site Work	6.94%				
14		General Requirements	3.80%				
15		Installed Equipment Factor	30.00%				
16		Contingency	25.00%				
17							
18	**Calculated Values**						
19							
20			***Project Cost***				
21			Equipment	$1,040,000			
22			Concrete	$484,577			
23			Electrical & Instrumentation	$376,647			
24			Architectural	$568,983			
25			Site Work	$192,060			
26			General Requirements	$105,162			
27							
28			Projected Cost	$2,767,429			
29			Contingency	$691,857			
30							
31			Total Projected Cost	**$3,459,286**			

	A	B	C	D	E	F	G
1	Katelyn Beatty						
2	CEEN 4812						
3	Due 15 September 2009						
4	**Cost Estimating Example 4**						
5	**Sewage Treatment Plant**						
6							
7	***Factors***				***Expenses For Project***		
8	Process Equipment	0.3758			Installed Equipment Cost		
9	Concrete	0.1751			**Before** Piping & Valves		800000
10	Electrical & Instrumentation	0.1361					
11	Architectural	0.2056					
12	Site Work	0.0694					
13	General Requirements	0.038					
14	Installed Equipment Factor	0.3					
15	Contingency	0.25					
16							
17							
18							
19		***Project Cost***					
20		Equipment	=((G8*C14)+G8)				
21		Concrete	=((ROUND((D20/C8),0)*C9))				
22		Electrical & Instrumentation	=((ROUND((D20/C8),0)*C10))				
23		Architectural	=((ROUND((D20/C8),0)*C11))				
24		Site Work	=((ROUND((D20/C8),0)*C12))				
25		General Requirements	=((ROUND((D20/C8),0)*C13))				
26							
27		Projected Cost	=ROUND(SUM(D20:E25),0)				
28		Contingency	=ROUND(D27*C15,0)				
29							
30		Total Projected Cost	=ROUND(SUM(D27:E28),0)				

	A	B	C	D	E	F	G	H
1	Katelyn Beatty							
2	CEEN 4812							
3	Due 15 September 2009							
4	**Cost Estimating Example 4 (Recalculation)**							
5	**Sewage Treatment Plant**							
6								
7	***Factors***				***Expenses For Project***			
8	Process Equipment		37.58%		Installed Equipment Cost		**$1,100,000.00**	
9	Concrete		17.51%		**Before** Piping & Valves			
10	Electrical & Instrumentation		13.61%					
11	Architectural		20.56%					
12	Site Work		6.94%					
13	General Requirements		3.80%					
14	Installed Equipment Factor		20.00%					
15	Contingency		25.00%					
16								
17								
18								
19		***Project Cost***						
20		Equipment		$1,320,000				
21		Concrete		$615,040				
22		Electrical & Instrumentation		$478,052				
23		Architectural		$722,171				
24		Site Work		$243,768				
25		General Requirements		$133,475				
26								
27		Projected Cost		$3,512,507				
28		Contingency		$878,127				
29								
30		Total Projected Cost		**$4,390,634**				

	A	B	C	D	E	F	G
1	Katelyn Beatty						
2	CEEN 4812						
3	Due 15 September 2009						
4	**Cost Estimating Example 4 (Recalculation)**						
5	**Sewage Treatment Plant**						
6							
7	***Factors***				***Expenses For Project***		
8	Process Equipment	0.3758			Installed Equipment Cost		
9	Concrete	0.1751			**Before** Piping & Valves		1100000
10	Electrical & Instrumentation	0.1361					
11	Architectural	0.2056					
12	Site Work	0.0694					
13	General Requirements	0.038					
14	Installed Equipment Factor	0.2					
15	Contingency	0.25					
16							
17							
18							
19		***Project Cost***					
20		Equipment	=((G8*C14)+G8)				
21		Concrete	=((ROUND((D20/C8),0)*C9))				
22		Electrical & Instrumentation	=((ROUND((D20/C8),0)*C10))				
23		Architectural	=((ROUND((D20/C8),0)*C11))				
24		Site Work	=((ROUND((D20/C8),0)*C12))				
25		General Requirements	=((ROUND((D20/C8),0)*C13))				
26							
27		Projected Cost	=ROUND(SUM(D20:E25),0)				
28		Contingency	=ROUND(D27*C15,0)				
29							
30		Total Projected Cost	=ROUND(SUM(D27:E28),0)				