Contents map

developed content units	*taxonomy levels*
free evolution	u1, e2

prerequisite content units	*taxonomy levels*
ODEs	u1, e1
linear time invariant systems	u2, e2

Question 1

Inverse-Laplace transform the following $F(s)$:

1-1. $F(s) = \frac{5s+1}{s^2-25}$

1-2. $F(s) = \frac{6}{(s+1)^3}$

1-3. $F(s) = \frac{1}{s^4-s^2}$

1-4. $F(s) = \frac{e^{-2s}}{(s-1)^3}$

Question 2

Consider the system $\dot{y} = -0.5y + 2.3u$, $y_0 = 1$, and $|u(t)| \leq 2$ for every t. Assume moreover that from $t = 10$, $u(t) = 0$. Then we are sure that $y(t) \approx 0$ at the earliest starting from …

1. $t = 10$
2. $t = 20$
3. $t = 30$
4. $t = 40$
5. none of the above
6. I do not know

Question 3
$(2 + 2) \cdot 1$ equals to? 1. 2 2. 4 3. I don't know

Contents map

developed content units	***taxonomy levels***
content unit A	uA, eA
content unit B	uB, eB
⋮	⋮

prerequisite content units	***taxonomy levels***
content unit C	uC, eC
content unit D	uD, eD
⋮	⋮

Contents relationships

"to learn x at t.l. α it is necessary to know y at t.l. β" relations			
CU X	uX, eX	CU Y	uY, eY
⋮	⋮	⋮	⋮

"to learn x at t.l. α it is useful to know y at t.l. β" relations			
CU X	uX, eX	CU Y	uY, eY
⋮	⋮	⋮	⋮

"x is generalized by / contained in y" relations	
CU X	CU Y
⋮	⋮

"x is a synonym of y" relations	
CU X	CU Y
⋮	⋮

"x at t.l. α is directly logically connected to y at t.l. β" relations			
CU X	uX, eX	CU Y	uY, eY
⋮	⋮	⋮	⋮