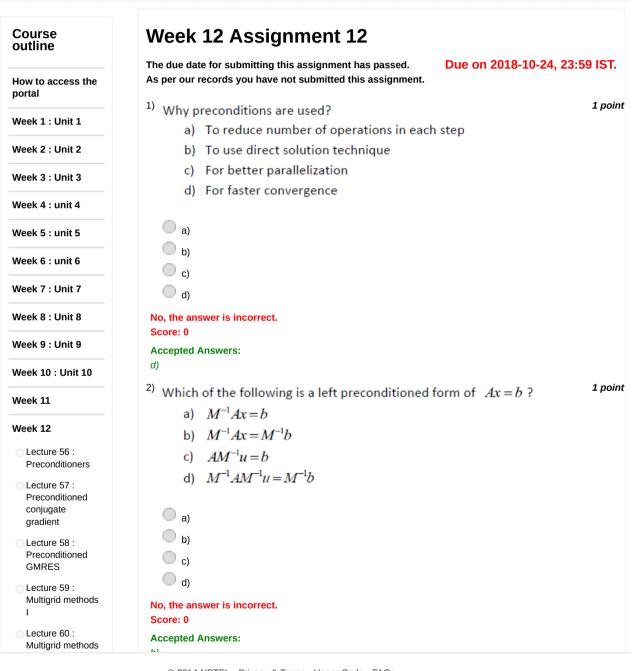


Unit 13 - Week 12





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Which of the following can give a symmetric preconditioning? Assignment Solution a) M = LDUb) $M^{-1} = UL$ Interactive Session with c) $M = LL^T$ Students d) All of these (a) (b) (c) No, the answer is incorrect. Score: 0 **Accepted Answers:** 4) 1 point The operations during iterations for left and right preconditioning of a conjugate gradimethod are essentially same. a) True b) False (a) (b) No, the answer is incorrect. Score: 0 **Accepted Answers:** a) 1 point Which of the following Krylov subspaces describe the solution update space $K_{\scriptscriptstyle m}$ for a preconditioned GMRES? a) $K_m = K(A, r_0)$ b) $K_m = K(A, M^{-1}r_0)$ c) $K_m = K(M^{-1}A, r_0)$ d) $K_m = K(AM^{-1}, r_0)$ (a) (b) (c) No, the answer is incorrect. Score: 0 **Accepted Answers:** c) 6) 1 point

Which of the following iterates can produce a symmetric preconditioning?
a) Gauss-Seidel
b) ADI
c) Symmetric SOR
d) Minimum residual
(a)
a) b)
© c)
(a)
No, the answer is incorrect. Score: 0
Accepted Answers:
c)
7) 1 point
For Jacobi iteration of finite difference matrix, the spectral radius of the iteration mat
is higher for
a) Lower grid spacing
b) Lower number of grid points
c) Higher boundary values
d) Lower convergence criterion
(a)
a) b)
© c)
(d)
No, the answer is incorrect. Score: 0
Accepted Answers:
a)
1 point
For iterative solution of Laplace equation by finite difference method,
a) Higher number grid points will have lower number of operations per iterati
step.
b) Lower number of grid points will have lower number of operations per iterati
step.
c) Higher number of grid points will take lower number of iteration steps
d) None of the above
a, None of the above
(a)
(b)
(c)
(a)
No, the answer is incorrect.
Score: 0
Accepted Answers:

b)	
9) Which of the following is not a multigrid step?	1 point
a) Domain decomposition	
b) Relaxation	
c) Prolongation	
d) Restriction	
○ a)	
(b)	
○ c)	
(d)	
No, the answer is incorrect.	
Score: 0	
Accepted Answers: a)	
10)	1 point
In which of the multigrid cycle, relaxation may be done in a coarser g	rid level for m
than once?	,
a) V-cycle	
b) W-cycle with more than two grid levels	
c) W-cycle with a single grid level	
d) Full-multigrid	
(a)	
(a) b)	
O c)	
(a)	
No, the answer is incorrect.	
Score: 0	
Accepted Answers:	
b)	
Draviaus Dage	End
Previous Page	End