vel'y factor	1.19	contact, bending life factors	0.809	0.301	0.882	0.338	
velocity, m/s	1.49	contact, bending lives, khr	49.07	large	**21.20**	large	
module, mm	8.00	pitting geom factor 0.1123	contact ratio 1.556				
width, mm	100.0	commercial, 7 accuracy level gears					

problem 17, block 3

power, kW	35.0	PINION, WHEEL - speeds, rpm	100.0		48.9		
appl'n factor	1.25	tooth number, profile shift	23	0.39	47	0.09	
rel'y factor	1.00	all. contact, bending stresses	1200	500	1100	500	MPa
dist'n factor	1.25	bending geom & max life fctrs	0.465	1.04	0.414	1.04	
vel'y factor	1.15	contact, bending life factors	0.861	0.341	0.940	0.384	
velocity, m/s	1.00	contact, bending lives, khr	23.93	large	**10.34**	large	
module, mm	8.00	pitting geom factor 0.1123	contact ratio 1.556				
width, mm	100.0	commercial, 7 accuracy level gears					

Finally apply Miner's Rule, noting that the wheel is the weak link in all blocks, so the use of Miner is justified.

Summarising, for life L khr :

block		1	2	3	
load, P	kW	60	45	35	
pinion speed, N_1	rpm	200	150	100	
wheel speed, N_2	rpm	97.9	73.4	48.9	
duration, t	min	10	20	30	
n = (t/Σt)L*N	Mc	97.9*10	73.4*20	48.9*30	*L *1E-3
block life (program)	khr	12.94	21.20	10.34	
n* = N_2*block life	Mc	97.9*12.94	73.4*21.20	48.9*10.34	*60E-3

Applying Miner : (10/12.94 + 20/21.2 + 30/10.34)*L/60 = 1 whence L = 13 khr