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PPPPPPP RRRRRRR 000000 BBBB BBBB 333333
PPPPPPP RRRRRRR 000000 BBBB BBBB 333333
PP PP RR RR 00 00 BB BB 33 33
PP PP RR RR 00 00 BB BB 33 33
PP PP RR RR 00 00 BB BB 33 33
PP PP RR RR 00 00 BB BB 33 33
PPPPPPP RRRRRRR 00 00 BBBB BBBB 33
PPPPPPP RRRRRRR 00 00 BBBB BBBB 33
PP RR RR 00 00 BB BB 33
PP RR RR 00 00 BB BB 33
PP RR RR 00 00 BB BB 33 33
PP RR RR 00 00 BB BB 33 33
PP RR RR 000000 BBBB BBBB 333333
PP RR RR 000000 BBBB BBBB 333333

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44 44 000000 000000 44 44 000000 5555555555
44 44 000000 000000 44 44 000000 5555555555
44 44 00 00 00 00 44 44 00 00 55
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44 00 00 00 00 44 00 00 55 55
44 00 00 00 00 44 00 00 55 55
44 000000 000000 44 000000 555555
44 000000 000000 44 000000 555555

```

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BBBB U UN N DDDD Y Y AAA
B B U UN N D D Y Y A A
B B U UN N N D D Y Y A A
BBBB U UN N N D D Y Y A A
B B U UN NN D D Y Y A A A A
B B U UN N D D Y Y A A
BBBB UUUU N N DDDD Y Y A A

```

LPTSPL VERSION 6(344) RUNNING ON LPT500  
\*START\* USER BUNDY A [400,405] JOB PROB3 SEQ. 3382 DATE 19-NOV-75 17:16:40 MONITOR NETMON 5.07B V3 (AUG 12 T \*START\*  
REQUEST CREATED: 19-NOV-75 17:16:24  
FILE: DSKA2:PROB3[400,422] CREATED: 19-NOV-75 11:46:00 <155> PRINTED: 19-NOV-75 17:16:50  
QUEUE SWITCHES: /PRINT:ARROW /FILE:ASCII /COPIES:1 /SPACING:1 /LIMIT:24 /FORMS:NORMAL

\*\*\*\*\*.  
\* PROB3.  
\* PROLOG TRAIN PROBLEM, P 20, NO 10.  
\* STAGE 5.  
\* G LUGER OCT 1975.  
\*\*\*\*\*.

+TFLAG.

+GIVEN(V.D0.D1.D2.D3.NIL).

+STANDSYS(SYS).

+STANDUNIT(L,FT,SYS) -/.

+STANDUNIT(T,MINS,SYS) -/.

+STANDUNIT(\*U,\*U,\*SYS) -ISCONST(\*U) -/.

+STANDUNIT(\*D,\*U,\*SYS) -UNIV(\*D,\*S.\*ARGS)  
-LSTANDUNIT(\*ARGS,\*UARGS,\*SYS) -UNIV(\*U,\*S.\*UARGS).

+LSTANDUNIT(NIL,NIL,\*SYS).

+LSTANDUNIT(\*D,\*DL,\*U,\*UL,\*SYS) -STANDUNIT(\*D,\*U,\*SYS)  
-LSTANDUNIT(\*DL,\*UL,\*SYS).

+SEGMENT(EPIISODE,PERIOD1.PERIOD2.PERIOD3,NIL).

+PERIOD(PERIOD1).

+PERIOD(PERIOD2).

+PERIOD(PERIOD3).

+PERIOD(EPIISODE).

+DURATION(PERIOD1,TI1).

+DURATION(PERIOD2,TI2).

+DURATION(PERIOD3,TI3).

+DURATION(EPIISODE,TI0).

+INITIAL(PERIOD1, DEPARTURE).  
+INITIAL(PERIOD2, CHANGE1).  
+INITIAL(PERIOD3, CHANGE2).  
+INITIAL(EPIISODE, DEPARTURE).  
+FINAL(PERIOD1, CHANGE1).  
+FINAL(PERIOD2, CHANGE2).  
+FINAL(PERIOD3, ARRIVAL).  
+FINAL(EPIISODE, ARRIVAL).  
+MOMENT(DEPARTURE).  
+MOMENT(CHANGE1).  
+MOMENT(CHANGE2).  
+MOMENT(ARRIVAL).  
  
+DISTANCE(TRAIN, D1, PERIOD1).  
+DISTANCE(TRAIN, D2, PERIOD2).  
+DISTANCE(TRAIN, D3, PERIOD3).  
+DISTANCE(TRAIN, D0, EPIISODE).  
  
+VEL(TRAIN, ZERO, DEPARTURE).  
+VEL(TRAIN, ZERO, ARRIVAL).  
+VEL(TRAIN, V, PERIOD2).  
+VEL(TRAIN, V, CHANGE1).  
+VEL(TRAIN, V, CHANGE2).  
  
+ACCEL(TRAIN, A1, PERIOD1).  
+ACCEL(TRAIN, ZERO, PERIOD2).  
+ACCEL(TRAIN, A3, PERIOD3).  
  
+MEASURE(ZERO, 0).  
+MEASURE(T11, T1).

+MEASURE(T12,T2).

+MEASURE(T13,T3).

+MEASURE(T10,T0).

+MEASURE(D1,D0/N).

+MEASURE(D2,D0-2D0/N).

+MEASURE(D3,D0/N).

+MEASURE(D0,N).

+MEASURE(A1,Y1).

+MEASURE(A3,Y3).

+MEASURE(V,Z).

+CONST(N).

+CONST(Y1).

+CONST(Y3).

+CONST(Z).

+UNIT(ZERO,\*W).

+UNIT(T11,SECS).

+UNIT(T12,SECS).

+UNIT(T13,SECS).

+UNIT(T10,SECS).

+UNIT(D1,FT).

+UNIT(D2,FT).

+UNIT(D3,FT).

+UNIT(D0,FT).

+UNIT(A1,FT/SECS:2).

+UNIT(A3,FT/SECS:2).

+UNIT(V,FT/SECS).

+DIRECTION(ZERO,\*U,\*V).



+DIRECTION(V,0,0).

+DIRECTION(A1,0,0).

+DIRECTION(A3,0,0).

+GO -FIND(TI0.NIL,\*ANS).

+FIN.