5. Circuit path lengths are calculated.

   a. Grid count is converted to nanoseconds by dividing by 360.

6 inches

```
<<< AAC
DAB (6) daa (84) dcd (0) *** .

       360 . . . . package delay for DAB
         6 . . . . DAB - daa
        84 . . . . daa - dcd
       108 . . . . 36 per pin
       ---
       558 . . . . 1.55 nanoseconds

<<< ABC
DBB (6) dba (78) dch (0) *** .

       360 . . . . package delay for DBB
         6 . . . . DBB - dba
        78 . . . . dba - dch
       108 . . . . 36 per pin
       ---
       552 . . . . 1.53 nanoseconds

<<< LAC
DCF (84) dhi (162) ehm (36) fem (0) *** .

       636 . . . . longest nonlatch input (dci in TDB)
       360 . . . . package delay for DCF
        84 . . . . DCF - dhi
       162 . . . . dhi - ehm
        36 . . . . ehm - fem
       144 . . . . 36 per pin
       ---
      1422 . . . . 3.95 nanoseconds
```

186,000

$$\frac{300,000,000}{3}$$

900,000,000

3

4 |‾1420
12/22

4
36
144

250
30
280
24

930
240
670
300
470