

Mariner 1 was launched in 1962, and was intended to go to Mars, but didn't. Nobody knows where it really went. Can you tell why?

Intended Program	Typed Program
<pre> ... IF (TVAL .LT. 0.2E-2) GOTO 40 DO 40 M = 1, 3 W0 = (M-1)*0.5 X = H*1.74533E-2*W0 DO 20 N0 = 1, 8 EPS = 5.0*10.0**(N0-7) CALL BESJ(X, 0, B0, EPS, IER) IF (IER .EQ. 0) GOTO 10 20 CONTINUE DO 5 K = 1, 3 T(K) = W0 Z = 1.0/(X**2)*B1**2+3.0977E-4*B0**2 D(K) = 3.076E-2*2.0*(1.0/X*B0*B1+3.0977E- 1 4*(B0**2-X*B0*B1))/Z E(K) = H**2*93.2943*W0/SIN(W0)*Z H = D(K)-E(K) 5 CONTINUE 10 CONTINUE Y = H/W0-1 40 CONTINUE ... </pre>	<pre> ... IF (TVAL .LT. 0.2E-2) GOTO 40 DO 40 M = 1, 3 W0 = (M-1)*0.5 X = H*1.74533E-2*W0 DO 20 N0 = 1, 8 EPS = 5.0*10.0**(N0-7) CALL BESJ(X, 0, B0, EPS, IER) IF (IER .EQ. 0) GOTO 10 20 CONTINUE DO 5 K = 1. 3 T(K) = W0 Z = 1.0/(X**2)*B1**2+3.0977E-4*B0**2 D(K) = 3.076E-2*2.0*(1.0/X*B0*B1+3.0977E- 1 4*(B0**2-X*B0*B1))/Z E(K) = H**2*93.2943*W0/SIN(W0)*Z H = D(K)-E(K) 5 CONTINUE 10 CONTINUE Y = H/W0-1 40 CONTINUE ... </pre>