

Sheet #106

KEY

PARAMETRIC GRAPHS

① **MODE** MEM(+) .722
T183:522

① **MODE** DEGREES, PAR(AMETRIC)

WINDOW

+MIN 0
+MAX 2
-STEP 0.03

XMIN 0
XMAX 12
XSCL 1

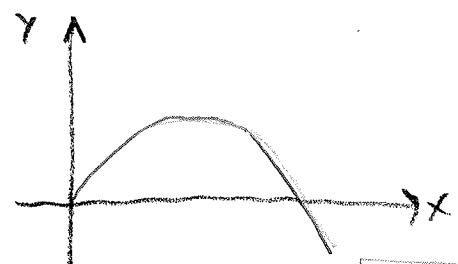
YMIN -1
YMAX 4
YSCL 1

Projectile $V_0 = 10 \text{ m/sec.}$
 $\theta_0 = 30^\circ$

$X_{1T} = 10 \cos(30)T$
 $Y_{1T} = 10 \sin(30)T - 5T^2$
 $X_{2T} = T$
 $Y_{2T} = \tan(30)T$

} INITIAL ANGLE

GRAPH/SKETCH

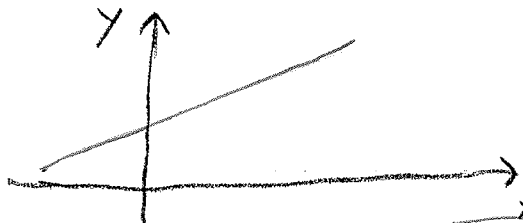


- WHAT IS SHAPE? **PARABOLA**
- WHAT ANGLE GIVES LARGEST RANGE? (BIGGEST X INTERCEPT) **45°**

MODE RADIANS
Y= CLEAR EQUATIONS

② $X = -2 + 4T$
 $Y = -1 + T$

ZOOM 6. **WINDOW** TMIN = -6

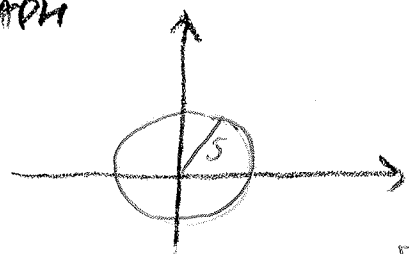


• WHAT IS FUNCTION? **LINE**

③ $X = 5 \cos(T)$
 $Y = 5 \sin(T)$

ZOOM 6 STANDARD
ZOOM 5 SQUARE

GRAPH



• WHAT IS SHAPE? **CIRCLE**
"5" IS **RADIUS**

④ $X = \cos(2T)$
 $Y = T$

ZOOM 7 TRIG TMIN = -6



• WHAT IS RELATION? **ARCCOS**