

4.1 Parametric Functions

AP Precalculus

Name: _____

CA #1

Find the coordinate point of the parametric function at the given value of the parameter.

1. At time $t = -9$, where is the parametric function

$$f(t) = \left(\sqrt{7-t}, \frac{3}{t+6} \right)?$$

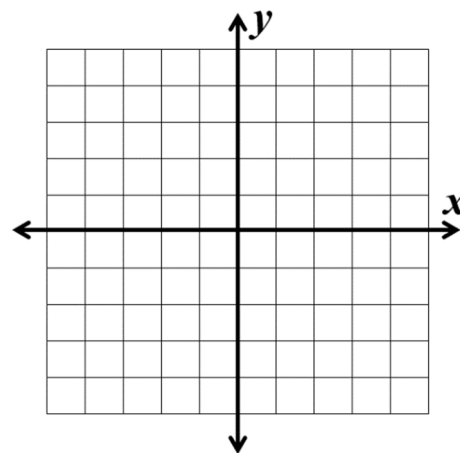
2. At time $t = 3$, where is the parametric function

$$f(t) = \left(3t^2 - 10, \frac{40}{t+5} \right)?$$

3. Given the parametric function $f(t) = (2t - 1, 4t)$, complete the table of numerical values for the given values of t . No calculator.

t	-2	-1	0	1	2	3
x						
y						

4. Complete a table of numerical values and sketch the curve for the parametric equations $x = 2t - 1$ and $y = (t + 1)^2$, $-2 \leq t \leq 2$



5. What is the domain of the parametric function $f(t) = (\sqrt{2t + 3}, t^3 + 5)$?

Answers to 4.1 CA #1

1. $(4, -1)$

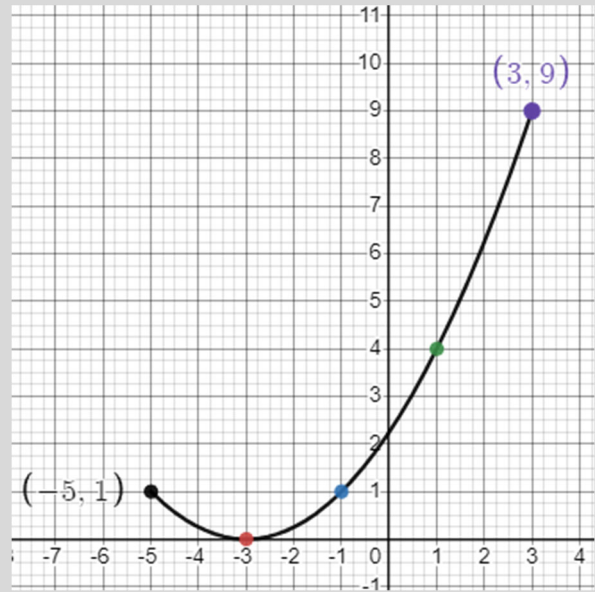
2. $(17, 5)$

3.

t	-2	-1	0	1	2	3
x	-5	-3	-1	1	3	5
y	-8	-4	0	4	8	12

4. Could have different values of t in your table, only start and end matter.

t	-2	-1	0	1	2
x	-5	-3	-1	1	3
y	1	0	1	4	9



5. $t \geq -\frac{3}{2}$