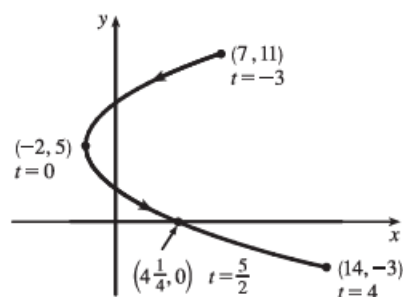


7. $x = t^2 - 2$, $y = 5 - 2t$, $-3 \leq t \leq 4$

(a)

t	-3	-2	-1	0	1	2	3	4
x	7	2	-1	-2	-1	2	7	14
y	11	9	7	5	3	1	-1	-3

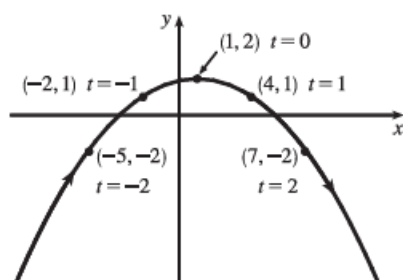


(b) $y = 5 - 2t \Rightarrow 2t = 5 - y \Rightarrow t = \frac{1}{2}(5 - y) \Rightarrow$
 $x = [\frac{1}{2}(5 - y)]^2 - 2$, so $x = \frac{1}{4}(5 - y)^2 - 2$, $-3 \leq y \leq 11$.

8. $x = 1 + 3t$, $y = 2 - t^2$

(a)

t	-3	-2	-1	0	1	2	3
x	-8	-5	-2	1	4	7	10
y	-7	-2	1	2	1	-2	-7

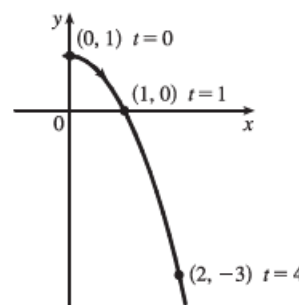


(b) $x = 1 + 3t \Rightarrow t = \frac{1}{3}(x - 1) \Rightarrow y = 2 - [\frac{1}{3}(x - 1)]^2$,
 so $y = -\frac{1}{9}(x - 1)^2 + 2$.

9. $x = \sqrt{t}$, $y = 1 - t$

(a)

t	0	1	2	3	4
x	0	1	1.414	1.732	2
y	1	0	-1	-2	-3



(b) $x = \sqrt{t} \Rightarrow t = x^2 \Rightarrow y = 1 - t = 1 - x^2$. Since $t \geq 0$, $x \geq 0$.
 So the curve is the right half of the parabola $y = 1 - x^2$.

24. (a) From the first graph, we have $1 \leq x \leq 2$. From the second graph, we have $-1 \leq y \leq 1$. The only choice that satisfies either of those conditions is III.

(b) From the first graph, the values of x cycle through the values from -2 to 2 four times. From the second graph, the values of y cycle through the values from -2 to 2 six times. Choice I satisfies these conditions.

(c) From the first graph, the values of x cycle through the values from -2 to 2 three times. From the second graph, we have $0 \leq y \leq 2$. Choice IV satisfies these conditions.

(d) From the first graph, the values of x cycle through the values from -2 to 2 two times. From the second graph, the values of y do the same thing. Choice II satisfies these conditions.