Map 1: Curvas de Bezier

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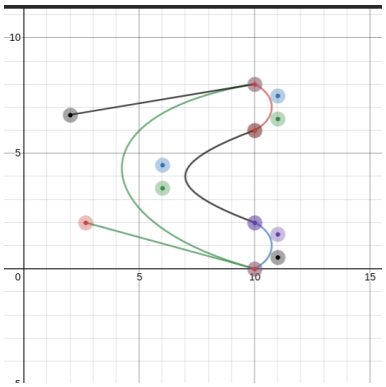
1. Curva de bezier de los puntos de control: $P_0(4,1)$, $P_1(28,48)$, $P_3(50,42)$, $P_4(40,5)$ Grafica:
2. Grafica con segmento de recta $\overline{P_0P_1}$, $\overline{P_1P_2}$, $\overline{P_2P_3}$
3. Demostracin de tangente en P_0 pasa por P_1 y la recta tangente de P_3 pasa por P_2
4. Demostracin con letra C



Ecuaciones que conforman la letra C

$$f(x) = 8(1-t)^3 + 20t(1-t)^2 + 6t^2(1-t) + 0t^3 \tag{1}$$

$$f(y) = 10(1-t)^3 + 6t(1-t)^2 + 8t^2(1-t) + 10t^3 \tag{2}$$

$$f(x) = 11(1-t)^3 + 33t(1-t)^2 + 33t^2(1-t) + 10t^3 \tag{3}$$

$$f(y) = 9(1-t)^3 + 22.5t(1-t)^2 + 19.5t^2(1-t) + 6t^3 \tag{4}$$

$$f(x) = 10(1-t)^3 + 12t(1-t)^2 + 12t^2(1-t) + 10t^3 \tag{5}$$

$$f(y) = 6(1-t)^3 + 13.5t(1-t)^2 + 10.5t^2(1-t) + 2t^3 \tag{6}$$

$$f(x) = 10(1-t)^3 + 33t(1-t)^2 + 33t^2(1-t) + 10t^3 \tag{7}$$

$$f(y) = 2(1-t)^3 + 4.5t(1-t)^2 + 1.5t^2(1-t) + 0t^3 \tag{8}$$

5. Apellido del matemtico: *Carter* Letra C

$$f(x) = 8(1-t)^3 + 20t(1-t)^2 + 6t^2(1-t) + 0t^3 \tag{9}$$

$$f(y) = 10(1-t)^3 + 6t(1-t)^2 + 8t^2(1-t) + 10t^3 \tag{10}$$

$$f(x) = 11(1-t)^3 + 33t(1-t)^2 + 33t^2(1-t) + 10t^3 \tag{11}$$

$$f(y) = 9(1-t)^3 + 22.5t(1-t)^2 + 19.5t^2(1-t) + 6t^3 \tag{12}$$

$$f(x) = 10(1-t)^3 + 12t(1-t)^2 + 12t^2(1-t) + 10t^3 \tag{13}$$

$$f(y) = 6(1-t)^3 + 13.5t(1-t)^2 + 10.5t^2(1-t) + 2t^3 \tag{14}$$

$$f(x) = 10(1-t)^3 + 33t(1-t)^2 + 33t^2(1-t) + 10t^3 \tag{15}$$

$$f(y) = 2(1-t)^3 + 4.5t(1-t)^2 + 1.5t^2(1-t) + 0t^3 \tag{16}$$

Letra A

$$(1-t)^3(12) + 3t(1-t)^2(12) + 3t^2(1-t)(18) + t^3(18) \tag{17}$$

$$(1-t)^3(0) + 3t(1-t)^2(10) + 3t^2(1-t)(10) + t^3(0) \tag{18}$$

$$(1-t)^3(13) + 3t(1-t)^2(13) + 3t^2(1-t)(17) + t^3(17) \tag{19}$$

$$(1-t)^3(0) + 3t(1-t)^2(8) + 3t^2(1-t)(8) + t^3(0) \tag{20}$$