

Linear Art Project

For you to recreate my smiley face linear art, you have to follow my equation and domains below. Don't forget to add color and your own personal style! Have fun:)

Equations for the head:

$$\begin{aligned}y &= 12 && \text{where } -9 \leq x \leq -9 \\y &= \frac{-5}{3}x + 27 && \text{where } 9 \leq x \leq 12 \\x &= 12 && \text{where } -7 \leq y \leq 7 \\y &= \frac{5}{3}x - 27 && \text{where } -9 \leq x \leq 12 \\y &= -12 && \text{where } -9 \leq x \leq 9 \\y &= \frac{-5}{3}x - 27 && \text{where } -12 \leq x \leq -9 \\x &= -12 && \text{where } -7 \leq x \leq 7 \\y &= \frac{5}{3}x + 27 && \text{where } -12 \leq x \leq -9\end{aligned}$$

Equation for the mouth:

$$\begin{aligned}y &= -4 && \text{where } -12 \leq x \leq -9 \\x &= 7 && \text{where } -6 \leq x \leq -4 \\y &= -x + 13 && \text{where } -7 \leq x \leq -4 \\y &= -9 && \text{where } -4 \leq x \leq 4 \\y &= -x - 13 && \text{where } -7 \leq x \leq -4 \\x &= 7 && \text{where } -6 \leq x \leq -4 \\y &= 2x + 1 && \text{where } -4 \leq x \leq -3 \\y &= -6 && \text{where } -3 \leq x \leq 3 \\y &= -2x - 1 && \text{where } 3 \leq x \leq 4\end{aligned}$$

Connect the points for the eyes:

(-7, 8)

(-7, 4)

(-3, 4)

(-3,8)

STOP

(-7,4)

(-6,5)

(-4,5)

(-3,4)

STOP

(-7,6)

(-6,7)

(-4,7)

(-3,6)

STOP

(7,8)

(7,4)

(3,4)

(3,8)

STOP

(7,4)

(6,5)

(4,5)

(3,4)

STOP

(7,6)

(6,7)

(4,7)

(3,6)

Congratulations!! You're done:)